MANCHESTER HIGH SCHOOL

VISION
All students will develop the tools necessary to become productive, responsible members of society.

MISSION
As a School community we are committed to:

- Living our Core Values of Respect, Responsibility, Integrity, Kindness and Perseverance
- Ensuring a high quality education for all
- Continuously improving practices to maximize learning for all
- Fostering positive partnerships among students, parents, families, school personnel and the community
- Maintaining a safe and inclusive school where equity is the norm and excellence is the goal

CORE VALUES, BELIEFS, AND LEARNING EXPECTATIONS

Manchester High School is a diverse and inclusive community. We believe every student can achieve excellence through unique learning experiences. We are committed to engaging students in a rigorous curriculum that fosters collaboration, supports individual growth and promotes authentic learning. Furthermore, our community encourages respect, integrity, perseverance and responsibility as students develop the mindset and character needed to be contributing members of our global society.

The Manchester High School community has identified the following learning expectations as our Vision of a MHS Graduate:

ACADEMIC, CIVIC, AND SOCIAL EXPECTATIONS

- **Critical Thinking**: Analyze and evaluate ideas, claims, evidence and/or representations to construct meaning.
- **Problem Solving**: Define problems and work through processes to determine solutions, draw conclusions, evaluate the reasonableness of solutions, and/or have a better understanding of problems.
- **Creative and Innovative Thinking**: Explore idea(s) through a meaningful, intentional process that inspires the development of a product, performance, or solution.
- **Collaboration**: Work together to share and evaluate knowledge and ideas by asking questions, listening actively, and respecting and considering the opinions of others in order to achieve a common goal.
- **Communication**: Express ideas and share information to effectively engage an audience for a given purpose and task.
- **Self-Direction and Process Monitoring**: Develop strategies and plans to manage time, accomplish goals, and monitor progress through feedback and reflection.
- **Cultural/Global Competence**: Examine how culture and conditions impact perspective, identity, and action.
- **Civic and Social Behavior**: Contributes positively to the school and global community.

Core Values

**Respect**: Being considerate of people, their ideas, your community and your school through your actions and words.

**Responsibility**: Taking ownership of and being accountable for your actions and choices.

**Integrity**: Doing the right thing, especially when it’s difficult.

**Kindness**: Appreciating the feelings of others through your actions and words.

**Perseverance**: Challenging yourself to overcome obstacles to achieve success.
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NON-DISCRIMINATION NOTICE

Manchester Public Schools does not discriminate in any employment practice, education program, or educational activity on the basis of race, color, religious creed, sex, age, national origin, ancestry, marital status, sexual orientation, gender identity or expression, disability (including, but not limited to, intellectual disability, past or present history of mental disorder, physical disability or learning disability), genetic information, or any other basis prohibited by Connecticut state and/or federal nondiscrimination laws. Manchester Public Schools does not unlawfully discriminate in employment and licensing against qualified persons with a prior criminal conviction. Manchester Public Schools is committed to a policy of equal opportunity/affirmative action for all qualified persons and equal access to Boy Scouts of America and other designated youth groups. Inquiries regarding Manchester Public Schools nondiscrimination policies and practices should be directed to:

Human Resources Specialist/Title IX Coordinator
Manchester Public Schools
45 North School Street
Manchester, CT 06042
860-647-3595

or

Marney Reardon, Coordinator of School Health Services
Section 504 Co-Coordinator
Manchester Public Schools
45 North School Street
Manchester, CT 06042
860-647-3324

ACCREDITATION STATEMENT

Manchester High School is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering postgraduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course of program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend this institution.

Inquiries regarding the status of an institution’s accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association:

New England Association of Schools and Colleges
209 Burlington Road Suite 201
Bedford, MA 01730-1433
MANCHESTER HIGH SCHOOL

ADMINISTRATION:
Katelyn Miner, Principal  860-647-3521
Lindsey Boutillier, Athletic Director  860-647-0046
Owen Carroll, Assistant Principal  860-645-6050
Donna Donnelly, Assistant Principal  860-647-3378
Kaitlin Levesque, Assistant Principal  860-647-5079
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Lisa Young, Assistant Principal  860-647-3531
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Marie Mieses  860-647-3556
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Ayesha Pal  860-647-8278
Kristin Phoenix (Bentley)  860-647-6303
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Marie Michael-Rogers  860-647-3557
Maria Papa-Rivera  860-647-0119
Jane Wright  860-647-3545

SCHOOL PSYCHOLOGISTS:
Michele Crandall  860-647-4546
John Marinari  860-647-5044
Cathy Williamson  860-647-0013

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Art  Pasqua Guzzi  860-647-3521
Business  Beth Hayes  860-645-6049
English  Angelina Dale/Kelly Munro  860-647-3566
Family & Consumer Sciences  Melissa Doherty  860-647-3569
Health & Physical Education  Kassandra Holder  860-647-3551
Mathematics  Catherine Mazzotta  860-647-3516
Performing Arts  Keith Berry  860-647-3546
Science  Stefanie Sebastiao  860-647-3536
Social Studies  Sara Robak  860-647-3560
Technology Education  Eric Larson  860-647-3508
World Languages  Gina Carrese  860-647-3519
## COURSE LISTING AT A GLANCE

*(Course Numbers and Levels are listed within each department)*

### Academy Seminars
- ESPA
- GSA Seminar
- Intro to ESPA
- MCA Seminar
- PAC Seminar

### Art
- Advanced Ceramics
- Advanced Drawing
- Advanced Jewelry/Metals
- Advanced Painting
- Advanced Placement—Studio Art
- Beginning Metal & Jewelry
- Ceramics
- Comic Design
- Digital Art & Design
- Drawing
- Explorations in Art & Design
- Explorations in Jewelry Making
- Metalsmithing / Jewelry
- Painting
- Portfolio Preparation
- Sculpture
- Wheel Throwing Pottery

### Business and Finance Technology
- College Accounting - MCC
- Computer Programming 1
- Credit Union Internship
- College Financial Literacy - MCC
- Entrepreneurship
- International Business
- Introduction to Business
- Marketing 1
- Microsoft Office Applications
- Personal Finance
- School Store Internship
- Sports and Entertainment and Management and Leadership
- Web Page Design

### English
- Abnormal Psychology in American Literature
- AP English—Language & Composition—Grade 12
- AP English—Literature & Composition —Grade 11
- American Literature—Grade 11
- American Studies—UCONN Early College
- Contemporary Journalism
- Creative Writing
- Freshman Seminar
- Humanities
- Language Arts—Grade 9
- Senior English
- Senior English— English Composition
- Senior English—UCONN Early College Experience
- Senior English
- Sophomore English
- Writing Center

### Extended Learning
- Career Exploration Internship
- Community Service
- Independent Study

### Family & Consumer Sciences
- Advanced Culinary Arts
- Bake Shop I, II
- Fashion and Design I, II, III
- Human Development & Family Studies (UCONN HDFS 1070 Early College Experience)
- Interior Design and Housing
- International Foods
- Introduction to Culinary Arts
- Introduction to Early Childhood Education
- Introduction to Education and Public Services Academy
- Introduction to Education: Schooling in Human Services
- Nutrition for Fitness
- Silk City Intern
- World of Children

### Health
- Freshman Health
- Junior Health
- Senior Health
- Universal Health

### Mathematics
- A.P. Calculus AB (UCONN 4 credit course)
- A.P. Calculus BC
- A.P. Statistics
- Algebra 1
- Algebra 2
- Calculus
- Consumer Math
- Elementary Concepts of Statistics
- Finite Math
- Geometry
- Math Modeling
- Pre-Calculus
- Problem Solving Strategies in Mathematics
- SAT Preparation
- Statistics and Probability
- UCONN Discrete Mathematics (UCONN 3 credit course)

### Performing Arts
- Acting
- Advanced Guitar Ensemble
- Advanced Percussion Ensemble
- AP Music Theory
- Chorus
- Concert Band
- Costuming
- Dance Ensemble
- Digital Music I, II
- Guitar I, II
- Hair and Makeup for the Stage
- Jazz Ensemble
- Music Appreciation
- Musical Theater
Performing Arts (continued)
Orchestra
Percussion Ensemble
Performing Arts & Communications Academy Seminar
Piano 1, 2
Songwriting
Theatrical Design

Physical Education
Advanced Sports Training
Advanced Team Sports
Beginner’s Swim Class
Intro to PE
Lifeguard Training
Sports Team Management
Team Sports
Unified PE
World Sports

Science
Animal Behavior
AP Biology
AP Chemistry
AP Environmental Science
AP Physics 1
Astronomy
Biochemistry 1,2
Biology
Botany
Chemistry
CNA Training
Earth & Space Science
EMT Training
Forensic Science 1, 2
Human Anatomy & Physiology
Investigations in Health Careers
Marine Science
Physics
Science Research 1, 2
Sports Medicine
UCONN Medical Terminology
UCONN Introduction to Allied Health Professionals
Veterinary Science

Social Studies (continued)
Introduction to Truth
Law & Order
Law in American Society
Modern American Music and Film
Modern US History
Modern World History
Participation in American Society
Psychology
Puerto Rican & Latino Studies
Roots of Global Civilization
Seminar in Truth
Sociology
UCONN Conflict & Peace Studies
UCONN Human Rights
UCONN Latin American Studies

Social Studies
African-American History
American Studies
AP Art History
AP European History
AP Microeconomics
AP Psychology
AP U.S. History
AP World History
AP US Government and Politics
Criminology
Education in a Multicultural Society
Human Rights
Humanities

Technology Education
AP Computer Science A
Architecture 1, 2
Automotive Technology 1, 2
Aviation & Aerospace
Broadcast Journalism
Broadcast Journalism Seminar
Communication Workshop
Computer Programming I
Computer Programming and Game Design
Computer-aided Design and Drafting 1-MCC, 2
Computer-aided Design and Drafting 2
Construction Technology 1, 2
Conventional Manufacturing Process Lab - MCC
Electronics Technology 1, 2
Engineering Design
Engineering Drawing Interpretations - MCC
Explorations in STEM
Graphic Design and Publishing
Manufacturing Certificate Program
Manufacturing Math
Manufacturing Pre-apprentice
Measurement for Manufacturing
Mobile App Design
Photography
Photography Seminar
Radio Broadcasting
Robotics
Safety in the Workplace
Sports Broadcasting
Studio Production
Using Tools and Materials 1, 2
Video Production
Yearbook

World Language
Chinese 1, 2, 3, 4, 5/UConn
French 1, 2, 3, 4
Italian 1, 2, 3, 4
Latin 1, 2, 3, 4
Spanish 1, 2, 3, 4, 5
UConn/AP Spanish
REQUIREMENTS FOR ENTRANCE TO GRADE 9
To enroll in Grade 9 at Manchester High School, a student must have a passing end of the year grade (in Grade 8) in all 4 full year academic courses (English, Mathematics, Science and Social Studies). Students who do not meet this requirement must successfully complete summer school in order to enroll in Grade 9.

REQUIREMENTS FOR GRADUATION
For the class of 2022 twenty-four credits are required for graduation. This must include a minimum of the following core requirements:

8.0 credits in Humanities including not fewer than:
- 4.0 credits in English
- 4.0 credits in Social Studies including 1 credit in US History; and at least .5 credit in Civics and a .5 credit in Human Rights

6.0 credits in Science and Mathematics including not fewer than:
- 3.0 credits in Math, including Algebra 1, Geometry, and either Algebra II or Probability and Statistics
- 3.0 credits in Science, including at least 1 credit in life science and at least 1 credit in physical science

1.75 credits in Health & Wellness to include
- 1.0 Physical Education and .75 Health

7.25 additional credits to include:
- 1.0 credits in Fine Arts or Vocational Education
- 0.5 credits in Personal Finance.

To qualify for a diploma, a student must be in attendance at least the entire second semester of the senior year and must meet all graduation requirements.

Effective with the class of 2023 (pending Manchester Board of Ed approval) students must earn 25 credits as outlined below to graduate from Manchester High School.

**Humanities** 9.0

**Distribution Requirements**
At least
- 4.0 credits in ELA
- 3.0 credits in Social Studies including at least 1 credit in US History;
- 0.5 credits in Civics and 0.5 credits in Human Rights
- 1.0 credits in the arts

**STEM** 9.0

**Distribution Requirements**
At least
- 3.0 credits in Mathematics including Algebra 1 and either Algebra 2, or Statistics, or Data Science
- 3.0 credits in Science including at least 1 credit in life science and 1 credit in physical science
- 0.5 credits in Personal Finance

**Health, Wellness and Safety** 2.0

**Distribution Requirements**
At least
- 1.0 credit in Physical Education and Wellness courses, including at least .75 credits in Physical Education
- 1.0 credit in Health and Safety, including at least 0.75 credits in Health

**World Language** 1.0

**Mastery-based diploma assessment** 1.0

**Electives** 3.0

Relevant alternate experiences may be applied to meet the distribution requirements above in consultation with the principal or designee.

To qualify for a diploma, a student must be in attendance at least the entire second semester of the senior year and must meet all graduation requirements.

**Graduation Requirements For Special Education Students**
A special education student may earn a regular diploma by:
- satisfying all of the requirements for a regular diploma.
- classes may consist of all mainstream classes or a combination of mainstream and special education classes.

**Exchange Students And Graduation:**
- The student who is a senior but does not meet all of MHS graduation requirements will receive an “HONORARY” diploma and will be allowed to participate in the graduation ceremony.
- The student who fulfills all of the graduation requirements will receive a regular diploma, only if the student has not received a high school diploma or its equivalent from another system, including his or her country.

**To Participate In The Graduation Ceremony:**
- The student must have completed all graduation requirements prescribed by the Board of Education.
- All school obligations must be met.

Students who complete all graduation requirements in the Summer School session following their senior year are considered members of the previous June’s graduation class; however, they cannot participate in the June graduation ceremony.

Students interested in mid-year graduation must see their school counselor by the end of the junior year.

**SCHOLASTIC REQUIREMENTS**
Students will not be automatically promoted to the next grade. The number of credits a student has earned by the end of summer school will be used to determine his/her grade classification.

<table>
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<tr>
<th>Grade</th>
<th>Credits Required</th>
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<tr>
<td>10</td>
<td>5</td>
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<td></td>
<td>(4 of which must have been completed at MHS)</td>
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<td>11</td>
<td>11</td>
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<td>12</td>
<td>18</td>
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If you have any questions, please call your student’s school counselor at 647-3532.

Students who have not earned the above credits are advised to make them up in the summer if they are eligible. The total number of credits earned as of the end of the previous academic year is indicated on the report card. Students and parents should refer to this when computing credits for graduation.
SUMMER SCHOOL
The Manchester Summer School program offers students opportunities to make up some courses in which they have been enrolled, but have not received credit. Summer school courses may also be taken to improve grades for a sequential subject. In order to enroll in summer school students must have:

Earned a minimum final course grade of 40%
● Attended class for a minimum of 60% of the course
● Taken the final exam

Exceptions may be considered by the department’s Instructional Leader.

Students who plan to attend a summer school program other than Manchester’s must meet the same criteria as above and must seek approval prior to enrollment through the external credit option. See your counselor for details.

SUMMER TUTORING
Students may review a course to improve grades to meet sequential requirements through summer tutoring. Credit for a failed course may be earned through tutoring. In order to apply for this option, students must have earned a minimum final course grade of 40%, they must have attended class for a minimum of 60% of the course and they must have taken the final exam. Exceptions may be considered by the department’s Instructional Leader. Applications are available in Room 124. Tutoring cannot begin until school has been dismissed for the summer. Tutors must be certified teachers approved by the Guidance Director. Students will be required to pass an examination prepared by the department at the end of the tutoring. Grades earned for such tutoring will not be included in class rank, but the new grade will be included on the transcript. To receive credit or to upgrade for a sequential course, students must meet the following minimum requirement: A minimum of 20 hours of tutoring must be successfully completed.

ACADEMIC ELIGIBILITY FOR INTERSCHOLASTIC SPORTS
(followed by Article IX—CIAC By-laws)

To represent the school in athletics, students must carry at least four (4) units of work and have received a passing mark in at least four units of work at the end of the marking period preceding the contest. (Complete rules for sports eligibility can be obtained from the MHS Athletic Director or Guidance Director.) Fall sports eligibility requires that 4 credits be earned during the previous year. Credits earned in an approved Summer School program count toward this four credit requirement.

ADDITIONAL ELIGIBILITY REQUIREMENTS
“C RULE”
Manchester High School is a member of the Connecticut Interscholastic Athletic Conference (CIAC) and follows the eligibility requirements of the CIAC. Under the CIAC academic eligibility, a student must pass four subjects each marking period to be eligible for each sport season. The Manchester Board of Education has requested a higher standard and supports the “Academic Support Plan”. It is the expectation of the Manchester Board of Education to recognize the valuable learning experience to be gained by students who participate in interscholastic athletic programs. It is understood, however, that participation is a privilege and that academic success over sports must be stressed.

Goals:
● To assure the mutuality of high academic standards and the participation in sports.
● To establish the framework to set a higher academic standard for eligibility than the CIAC standard.

Objectives:
● Set the eligibility standard at a 2.2 average (C Rule).
● Qualifications for the program will be determined at the same time the CIAC eligibility requirements are being implemented.

Procedures:
● All athletes on freshman, junior varsity and varsity teams are subject to this regulation.
● At the time eligibility is determined all student-athletes whose grade point average falls below 2.2, provided they are otherwise CIAC eligible, will be referred to their head coach. The athlete and the academic advisor will develop an “academic support plan” to address the course or courses that need additional attention.
● The academic advisor and the head coach will collaborate to ensure the academic support plan is followed.
● As long as these students abide by the academic plan and guidelines, they will be allowed to continue their participation on the team. Failure to comply with the provisions of the program guidelines will result in a meeting with the athletic director, academic advisor, coach, parent and student athlete. The meeting will review the academic support plan and revisit the expectations of the plan.
● Failure to follow the student-athletes prescribed academic support plan may result in the following, (the decision made by the head coach and the athletic director)
  ○ practice suspension
  ○ game(s) suspension
  ○ suspension for remainder of the season

Academic support plans will be individualized for each student athlete; the intention of the additional academic requirements is to support our student athletes. Collaboration between the head coach, athletic administration, the student athlete and their families is essential for the implementation and the success of each individualized academic support plan.

NCAA Eligibility
To participate in college athletics, please see the eligibility website at: web3.ncaa.org/ecwr3
CREDIT REGULATIONS

Year Long Courses:
Most academic courses meet for a full year, and credit (1.0) is awarded in June, if the final grade for the entire year is a passing grade.

Semester and Quarter Courses:
Courses that meet for one semester are awarded .50 credit for a passing final grade. Courses that meet for just one marking period (quarter) are awarded .25 credit for a passing final grade.

Grading System:
Grades are given as letters, which show the quality of work.

A - Superior  P - Pass with credit
B - Above Average  I - Incomplete
C - Average  L - Loss of credit due to attendance
D - Below Average, but passing  N - Not enough grades to evaluate
F - Failure, no credit

The above quarter or semester grades may include a plus or minus as follows: A+, A-, B+, B-, C+, C-, D+, D-, F-

Marks are reported at the end of each quarter (November, January, April, and June), and semester averages are reported in January and June.

Honor Roll is determined by quarter grades. To be eligible for honor roll, a student must be carrying four or more full time courses. Students who have an incomplete (I) are not eligible until the course has been completed.

HONOR ROLL GPA TABLE

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>A+</th>
<th>A</th>
<th>B+</th>
<th>B</th>
<th>A-</th>
<th>C+</th>
<th>C</th>
<th>D+</th>
<th>D</th>
<th>F</th>
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<td>3.4</td>
<td>3.1</td>
<td>3.7</td>
<td>2.8</td>
<td>2.5</td>
<td>2.0</td>
<td>1.0</td>
<td>0</td>
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Eligibility for HIGH HONORS: 3.5 or higher grade point average. Eligibility for REGULAR HONORS: 3.1 to 3.499 grade point average.

SCHOLARS AND HONOR GRADUATES
To qualify as a MHS Scholar, a senior must have a cumulative quality point average of 8.400 or higher. To qualify as a MHS Honor Graduate, a senior must have a cumulative quality point average of 7.2 to 8.399. To qualify as Valedictorian or Salutatorian, a senior must have been in attendance at MHS for at least four of the seven semesters starting in grade 9 and ending in January of the senior year.

The cumulative rank in class at the end of the junior year is a part of the transcript which is sent to colleges. Some colleges which utilize a rolling admissions plan or make decisions prior to receipt of the first semester senior rank in class will use this rank in class at the end of the junior year in evaluating the transcript and making admissions decisions. Other colleges defer decisions until receipt of first semester marks. All colleges, which students attend, will receive the final Manchester High School transcript. College acceptances are conditional upon satisfactory completion of the senior year at the same academic level on which the student’s acceptance was based.

RANK IN CLASS is a determination of each student’s relative position in the class as determined by the quality of school performance. Quality points are assigned to semester marks and are used to determine rank in class. All subjects taken within the MHS curriculum during the school year for which credit is received or failure recorded will be included in class rank unless the course description states the course is “unleveled.”

The following courses taken at other institutions or other educational programs will carry credit if prior approval has been granted but will not be included in class rank: summer study at MHS or other high schools, special study programs, tutoring for make-up credit, independent study, on-line courses, foreign exchange programs and courses taken at colleges. Courses taken at the Greater Hartford Academy of Math and Science will not be included in class rank. In the case of transfer students, only courses taken at MHS will be included in class rank.

Not-for-Rank-in-Class - Students may choose a “Not-for-Rank-in-Class” option for two of their courses, provided it is in addition to the required minimum of four courses being taken for rank. This option may not be elected for courses which are part of the core requirements for graduation. The Not-for-Rank-in-Class option allows students to elect such courses and to receive a quarterly letter grade and credit, but the courses will not impact rank in class. Applications for this option should be submitted to the administration by the end of the first ten days of each semester. Since a letter grade is received for the quarter, Honor Roll is affected. The semester grade will be either a “P” or “F.”

Rank In Class - Grade Point Scale
The above grade point scale is used to determine rank in class. For a plus semester grade, .4 quality point is added and for a minus semester grade, .4 point is subtracted. A grade of “F” cannot be assigned a plus or minus. Rank in class is determined solely by courses taken at MHS or by prior approval from the building principal.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
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<td>AP</td>
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<td>7.6</td>
<td>6.4</td>
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</tr>
<tr>
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<td>8.4</td>
<td>7.2</td>
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<tr>
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<td>0</td>
</tr>
<tr>
<td>POST SECONDARY PREP</td>
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<td>6.0</td>
<td>4.8</td>
<td>3.6</td>
<td>0</td>
</tr>
</tbody>
</table>

SOME COURSES ARE NOT LEVELED AND ARE NOT USED TO COMPUTE CLASS RANK, INCLUDING HOMEBOUND INSTRUCTION AND INDEPENDENT STUDY COURSES.
DESCRIPTION AND SELECTION OF LEVELS
Manchester High School offers a wide variety of courses on four levels of ability: Post Secondary Prep., College Prep., Honors and the Advanced Placement level (A.P.). The differences in the levels are determined by the amount of material covered in the course, and the level of difficulty of the content.

A.P. - Courses offered on the Advanced Placement level are the most challenging courses offered at MHS. Students electing these courses should have a record of high achievement on the Honors level in related courses and be highly motivated. Many colleges will award college credit for successful completion of AP courses, when a student scores a 3, 4, or 5 on the AP exam. See your counselor for details.

Honors - Courses offered at this level may be elected by students who have a record of high achievement and who are strongly motivated in the specific academic areas in which Honors courses are offered. Students in some Honors courses may take the College Board Advanced Placement examinations. All of the UCONN Cooperative courses are also offered on this level.

Students who earn a semester average of “A” in a College Preparatory level course may be eligible to elect Honors courses in the same subject area during the next year.

College Prep - Courses offered at this level are designed for students who have demonstrated above average achievement in the subject area and plan on attending college immediately upon graduation.

Post Secondary Prep - Courses offered at this level are designed for the student planning a post-secondary education. This may include some colleges, community colleges, technical colleges, vocational schools and proprietary schools.

Multi-Level - Courses offered at this level offer students the opportunity to choose the level of study and receive course credit at the honors, college prep, or post secondary prep level. Teacher expectations for student performance at honors, college prep, or post secondary prep levels are presented and discussed with students prior to their selection. Performance expectations at each level are no different than other classes with similar level designations. Multi-Level classes tend to be highly individualized where teachers facilitate student learning with a variety of assignments.

Course Selection and Placement:
Placement into grade 9 core courses will be based on test information, grade 8 report cards, grade 8 team member recommendations, and parent input.

Placement into levels for grades 10 and 11 will be based on academic performance, team or teacher recommendation and parent input.

Alternative methods of placement may be used for transfer students from outside the Manchester school district including ELL students and those transferring from alternative programs.

PREREQUISITE AND SEQUENTIAL COURSES
Students should be certain that they meet prerequisite and sequential requirements, which are stated in the course descriptions.

Prerequisite courses are those which provide introductory content and background for another course. A passing grade must be earned in prerequisite courses. MHS recognizes that students grow and mature; therefore, where extenuating circumstances exist, students who do not meet the prerequisite may appeal to the principal or his designee (e.g. department head, guidance counsel) for a special exception to the prerequisite.

Sequential courses are those which provide content and skills necessary for the courses that follow. To meet sequential requirements, students must earn a minimum of “C” for the second semester of a full year course, if they are to move on to the next course in the sequence. However, if a student takes the next sequential course on a lower level, only a passing grade must be achieved.

Students who wish to continue a sequential course on the same level but whose marks do not meet the requirements should plan to raise their marks by attending Manchester Summer School, by following an approved summer program elsewhere, or by repeating the course (for no credit), or through summer tutoring.

Repeating a Course for Credit - some elective courses may be repeated for credit with an emphasis on individual projects. To repeat a course for credit, a student must have earned a “C” or better grade when the course was previously taken, or must have the approval of the department head. Courses that may be repeated for credit are so noted in the course description.

External Credit is intended to enrich the MHS curriculum. Credits may not be earned in lieu of courses required for graduation, unless recommended by the appropriate Department Chair, the Director of Guidance and approved by the Principal. In no case will external credit be used in determining class rank.

Requirements for External Credit
1. An application must be completed by the student and submitted within 3 weeks of the beginning of the semester in which the activity is to be undertaken. Applications are available from school counselors.
2. Requirements are to be completed by the end of the year for which approval has been granted.
3. The responsibility for submission of grades and/or community-based learning activity requirements lies with the student. Grades and other required documentation must be submitted by June 1st to the Guidance Director.
4. No more than 1.00 credit can be taken in a semester through the external credit program and no more than a total of 4 credits throughout the high school career unless approved by the principal.
EXAMPLES OF COMMUNITY SERVICE & VOLUNTEER ACTIVITIES
Some examples of community-based learning activities:
Nursing Home  Police Athletic League
Police Station  Girl Scouts/Boy Scouts
Hospital      Church/Synagogue
Red Cross     Salvation Army
Teacher Aide

Examples of External ACADEMIC Credit AT OTHER INSTITUTIONS:
- College and university credits
- Special vocational courses
- Career-related courses
- Summer school
- On-line State of Connecticut approved courses

REPORT CARDS/PROGRESS REPORTS
A progress report is posted on-line one time per marking period.

A report card is available on-line at the end of each quarter.

Additional reports may be sent if the student's average has dropped by two letter grades, the student receives a grade of D or F, or the student is missing more than 20 percent of his/her homework.

ON-LINE PARENT ACCESS
On-line parent access to grades is available. Parents should contact the main office at 647-3521 for more information on obtaining a secure password for access to the grades of their son or daughter.

COURSE SELECTION GUIDELINES

1. The equivalent of 5 full-time courses all year (plus PE, and/or Health) is required for seniors. Students in grades 9-11 must carry a minimum of 7 credits, however juniors may carry 6.5 with administrative approval

2. Prerequisite and sequential requirements must be met at the end of some courses to continue in the same area the next semester.

3. In deciding the number of courses to elect, the time required for out-of-class preparation in each course and the time available to do it (including study hall periods and home study) should be considered.

4. Many courses have a limited number of sections, and it is possible that all courses elected by a student cannot be scheduled due to conflicts or closing of courses. An elective course may be canceled if there is not a sufficient number of students to offer the course.

5. A.P. and Honors elections will be reviewed by department chairs for eligibility requirements

Foundation for Success - All Students Many colleges give placement tests to freshmen as they enroll for the first semester. The tests are intended to determine whether freshmen have the basic skills needed for success in college level courses. Students who do not demonstrate the necessary skills in math, writing, world languages, and reading will need to spend valuable college time acquiring what they could have acquired in high school. Students who do well on the placement tests can enroll immediately in a full program of courses at the freshman level or above. These students gain an important competitive advantage.

Mathematics - All students should take a mathematics course during their senior year in high school. All students are encouraged to complete a four-year math sequence. Students who wish to pursue careers in the Natural Sciences, Engineering, Computer Science, Business, or Economics should, at a minimum take a math course focusing on Trigonometry, Analytical Geometry, and Mathematical Analysis (Pre-Calculus).

Writing - is a fundamental skill needed in college and the business sector. Writing skills must be applied in all subjects. The Connecticut universities use SAT scores as one measure of writing ability. Placement tests in writing are many times given after admission.

Reading - A large amount of reading is required by colleges and employers. All students must be able to vary their reading speed, identify main ideas, and summarize, analyze, and interpret material read.
The College Career Pathway Program and potential college credits are at the discretion of the State of Connecticut, MCC and approved funding. The College Career Pathways program is a partnership between community colleges and high schools that is part of a nationwide, federally funded project designed to link high schools, community colleges and employers. Students in grades 10-12 at Manchester High School can explore career opportunities while earning high school and FREE college credit at the same time! Enrolled students can choose from a variety of academic courses including math, science, and English, as well as designated career and technical education area courses.

These earned college credits can be used at any of the state community colleges or universities and are potentially transferrable to other colleges and universities. Because of this special partnership, college application fees, tuition, and even the cost of books are waived for College Career Pathways students.

At MHS, we currently offer course sequences in the following Pathways: Business, Management, Communication, Restaurants/Foods, and Business Office Technologies. College Career Pathways students must fill out a community college on-line application to earn “dual credit” (credit from their high school and college). In addition, students may earn credit for Algebra II, English/Communication and/or English Composition courses, and a science course, Anatomy & Physiology, Introduction to Early Childhood Education and Law and Order.

**Necessary forms must be completed by the announced deadlines. Credit cannot be back issued. Students are responsible for completing and submitting all materials and application by the due date.**

Sophomores, juniors and seniors may enroll in the College Career Pathway program by completing the following procedures:

1. Meet with your counselor and register for the appropriate College Career Pathway Program. NOTE: New students to the CCP Program will have to complete the online application form at the college website.

2. Complete a College Career Pathway Consent Form which requires the following:
   - A counselor recommendation/signature
   - Selection of a College Career Pathway (area of interest)
   - Selection of Pathway courses currently enrolled in at MHS
   - A student signature
   - A parent signature

Complete the online application available at www.mcc.commnet.edu/ccp. This application will require you to know your Social Security Number and have a valid e-mail address.

Notify your classroom teacher that you want to be registered to receive College Career Pathways credit for the course.

Students who have earned college credit do not automatically receive official college transcripts once their courses are completed. Students may go online to view grades or print unofficial transcripts by logging into the website of the community college using the college ID number that will be mailed to them. Official transcripts can be obtained by mailing or faxing an official transcript request form to the college. **Students may elect to continue their education at the community college or they may choose to attend another college of their choice and request that the community college credits be transferred.** Transfer credit decisions are made by the receiving school.

With the exception of Algebra II, students in articulated courses will receive college credit as long as all course requirements are met and they receive a passing grade. Credit for the Algebra II course (MAT*138: Intermediate Algebra: A Modeling Approach) can take the Accuplacer Test at MCC. This requires that the student achieve a score of 35 or higher on the College Level Mathematics portion of the Accuplacer test and a score

Test scores must be submitted by the high school to the college by **July 1** after the course is completed. Details about the College Career Pathways program at MCC including all important policy information and a link to the application are available at:

www.manchestercc.edu/ccpapplication

https://www.manchestercc.edu/
Business Management PATHWAY

The Business Administration Pathway program is designed for students interested in a career in business and attending 2 and 4-year college programs. The program prepares graduates for careers in banks, small businesses, insurance companies and governmental agencies.

Classes in the Business Management Pathway include:

1. College Accounting
2. College Financial Literacy

These courses build upon basic concepts taught in Personal Finance and will teach students essential decision-making skills they must apply and use to become wise and knowledgeable consumers, savers, investors, users of credit, money managers, citizens, and members of a global workforce and society. These college level courses are designed to incorporate concepts and skills from mathematics, language arts, social science, applied technology, character education, and other interdisciplinary areas. In addition, students will be familiarized with the basics of the accounting equation and financial statement analysis. Students enrolled in the College Career Pathways Program who take these classes in their sophomore, junior, or senior year may be eligible to receive 3 MCC credits for Financial Literacy and 4 MCC credits for College Accounting which may be transferable to other institutions in higher education.

Prerequisite: Personal Finance

Communication PATHWAY

The Communication College Career Pathway program is designed to prepare students interested in 2 and 4-year college programs in Media Productions. Through on-site training, the program will identify, plan, and provide opportunities for students to seek the knowledge and skills required in media. Technical skills like layout, editing, organization, communication, Script Writing, News Reporting, Journalism, Camera Operating and Editing.

Classes in the Communications Pathway include:

1. Studio Production
2. Broadcast Journalism

Manufacturing PATHWAY

The Manufacturing College Career Pathway is designed to prepare students for courses that lead to a certificate program that provides students with the necessary hands-on experience and foundational knowledge to qualify for entry-level positions as machine operators and quality control inspectors. In the MCC program, students can work towards earning up to 30 credits that can be applied toward an associate degree.

Courses in the Manufacturing Pathway include:

1. Intro to CAD 1
2. Engineering Drawing Interpretations
3. Conventional Manufacturing Process Lab
names and purposes of tests

Advanced Placement Examinations (AP)
These are three-hour examinations in specific subject areas taken in May for the purpose of securing college credit or obtaining advanced placement. They are based on subject matter covered in the first year of college. Students in advanced placement courses must pay for and take the respective AP exam.

College Board Testing Accommodations for Students with Disabilities
Please note that students with a documented disability may be eligible for accommodations on College Board tests (AP, PSAT & SAT). The College Board’s Services for Students with Disabilities (SSD) Student Eligibility Form must be submitted for each student requesting accommodations. To be eligible, the student must have a disability that necessitates testing accommodations, have documentation on file at the school that supports the need for requested accommodations and meets the College Board’s Guidelines for Documentation; and receive and utilize the requested accommodations, due to the disability, on school-based tests. A student who does not meet all the eligibility requirements may appeal the requirement. Forms must be submitted well ahead of the first test date, generally five weeks before, and seven weeks before for appeal cases.

Students who were previously approved by the College Board for accommodations while a MHS student need not apply again unless their need for accommodations has changed. When registering for SAT’s, approved students must include their S.S.D. code number with the registration form. Students not previously approved for accommodations and those new to MHS who had been approved at another school must apply for eligibility.

See your counselor, or call the guidance office at 647-3533, for a copy of the form and for further details.

Preliminary Scholastic Assessment Test/National Merit Scholarship Qualifying Test: PSAT/NMSQT
This is a shorter version of the Scholastic Assessment Test (SAT) and is given in October to all MHS sophomores and juniors. Junior test results are used in the selection of Merit Scholars, Finalists and Commended students in the NMSQT program. Sophomore and junior results are used for individual academic and post high school planning.

Armed Services Vocational Aptitude Battery (ASVAB)
This test is available to all students who are interested in assessing their aptitudes. The ASVAB can assist students in making decisions about career paths based on actual abilities. There is no military obligation. The test will be given at MHS on a date to be announced.

Scholastic Assessment Testing Program:
SAT
The SAT is a three-hour test that consists of evidenced based reading and writing sections and mathematics sections. Additionally, an optional essay (50 minutes) is available. All juniors take the SAT without essay in the spring as mandated by the State of Connecticut. The scores may be used for college admission purposes if authorized by the student, but may also be suppressed by the student. We recommend that students take the SATs at least twice because colleges generally use the highest scores. The SAT is administered nationally seven times per year. Please see your counselor for further details.

If a senior is applying as an early decision candidate, all testing should be completed prior to November 1st.

Students must register directly with the College Board (www.collegeboard.com) to take the SAT’s. Fee waivers are available to eligible students from School Counselors.

Greater Hartford Academy of the Arts at the Learning Corridor
A primary goal of the Greater Hartford Academy of the Arts is to provide college preparatory arts training to high school students in a diverse, highly challenging environment of professional artists and arts educators.

The Academy, established in 1985, is an integral magnet art high school that is open through audition to high school students in the Greater Hartford area. Academy students attend their sending school in the morning and the Academy from 1:00 to 4:15 p.m., Monday through Thursday. The students spend 13 intensive hours per week pursuing artistic excellence under the guidance of practicing artists professionals who are the core faculty at the Academy. The arts training program is designed to prepare gifted and talented students to pursue post-secondary studies in music, dance, theatre, creative writing, visual arts, film and TV and theatre design and production.

The curriculum is professionally oriented, highly structured and academically rigorous. An Artist-in-Residence Program brings outstanding artists to the Academy for master classes and presentations. These professional contacts enrich the curriculum as well as provide a realistic perspective on artistic careers.

Students interested in applying to the Academy may request an application from the Academy Secretary, at (860) 757-6317.
Manchester Community College Partnership Program offers the opportunity for sophomore, junior and senior students to earn high school credit, as well as Manchester Community College credit, in courses offered at Manchester Community College. Student tuition and fees are waived for a maximum of two courses for students who qualify. To be eligible, students must be pursuing a college preparatory program, have a "B" average, and have the approval and recommendation of the MHS External Credit Committee. Final acceptance is determined by MCC. Application information is available in the Guidance Office.

Greater Hartford Academy of Math and Science in Windsor
The Greater Hartford Academy of Mathematics and Science is a public, magnet program for grades 9-12 managed by the Capitol Region Education Council (CREC). The Academy opened in the fall of 2000. The Greater Hartford Academy of Mathematics and Science provides students with a specialized honors level curriculum in the natural sciences and mathematics taught by skilled teachers. The curriculum is founded in laboratory experiences of physics, chemistry, biology, biochemistry and molecular genetics, earth science, astronomy and electronics and engineering. Mathematics and computer science are taught as disciplines and, more importantly, through applications to scientific experimentation. Upper class students (grades 11 and 12) are afforded opportunities in research at the surrounding institutes of higher education, as well as within students’ personal research labs at the Academy. Technology and applications of computer science are a major component of all activities, and the school has been designed for each student to be fully integrated into the world’s information network. The magnet school is conducted on half-day sessions with courses in mathematics, computer science, health/biomedicine and natural sciences. Grades 9 and 10 attend the magnet school in the mornings and grades 11 and 12 in the afternoons. All other curricular courses are provided by Manchester High School. In order to be successful at the Academy, students should have completed Algebra I prior to the 9th grade, possess a strong motivation for pursuing math and science and have an aptitude for inquiry based learning.

The State of Connecticut and the Manchester Board of Education support a limited number of tuitions. Information regarding admission procedures may be obtained from the Guidance Office. Further information can be obtained by contacting the Greater Hartford Academy of Mathematics and Science, Admissions & Student Services Office, 757-6315.

Driver Education is offered in the afternoon, evening and summer school. Students are required to pay the full instructional cost of the 32 hours of classroom instruction and 8 hours of behind-the-wheel instruction. To enroll, students must be at least 16 years of age at the beginning of the course. Details and enrollment forms are available from the Driver Education Coordinator after May 1 for summer classes and on the first day of school for the classes offered during the school year. Students receive .30 credits for successful completion. Registration forms are available in the Guidance Office.

ALTERNATIVE EDUCATION

Bentley School Program
This program is a regular education alternative program designed for students who cannot perform adequately in the mainstream setting of the high school. The students are eligible to take elective courses in the high school. There is a separate admissions process for the Bentley School Program. Additional information can be secured through School Counselors.

Credit Diploma Program—Adult Education
The credit diploma program is a division of the Adult Education Program. Through this program, students can enroll to take classes in the evenings and earn enough credits to obtain an adult education diploma. The student/teacher ratio is beneficial to students who have difficulty in the mainstream setting. Students withdraw from MHS and then enroll in this high school diploma program. Interested students should see their school counselors for details.
COURSEWORK AND CHANGES

Minimum Course Requirements:
The equivalent of 5 full-time courses all year (plus PE, and/or Health) is required for seniors. Students in grades 9-11 must carry 6 credits all year (plus PE and/or Health).

Change of Course Level:
Most changes in program cannot be made after the last day of school in June. After school opens:

During the first two weeks of the school year - students, teachers, parents and counselors may work together to rectify scheduling errors only.

After the first two weeks - a request to change to a lower level requires administrative approval. Students are expected to take advantage of extra help that is available. See your counselor to discuss options.

If a student moves to a less advanced level (ex: Honors to CP) at the end of the first quarter and has made up any and all owed work, ten points will be added to the first quarter’s average when calculating the course’s final grade. This consideration applies to changes made in the first quarter of the course only. Changes made after that point will not carry any grade adjustment.

No level changes or course drops will occur after the midpoint of a course.

All changes, regardless of when they are approved, will be processed at the end of the quarter barring any extenuating circumstances.

Changes to a higher level
Movement to a more advanced level may occur within the first semester of the school year. There will be no adjustment in grade.

Change of teacher within a course (lateral transfer) is not permitted.

Course Drops
When courses are dropped, please keep the following in mind:
- Seniors must be enrolled in 5 full time courses, in addition to physical education and health education.
- Students in grades 9-11 must carry 7 credits all year. However, juniors may carry 6.5 with administrative approval.
- The student must report to the class until it is officially dropped.
- All books/equipment must be returned to the teacher before finalizing change.
- Courses are dropped at the end of a quarter
- Courses may not be dropped after the midpoint of the course.

GRADING

Grading System
Grades, which show the quality of work, are given as letters. Plus and minus grades shall be issued where appropriate. An evaluation of a student’s academic performance each semester is best expressed as a numerical average ranging from 1 to 100; therefore, the quarter grade is recorded in the grade book as a numerical average between 0 and 100.

A+ = 97 - 100
A = 93 – 96
A- = 90 – 92 {SUPERIOR}
B+ = 87 – 89
B = 83 – 86 {ABOVE AVERAGE}
B- = 80 – 82
C+ = 77 – 79 {AVERAGE}
C = 73 – 76
C- = 70 – 72
D+ = 67 – 69
D = 63 – 66 {BELOW AVERAGE BUT PASSING}
D- = 60 – 62
F = 0 - 59 {FAILURE; NO CREDIT}

P = PASS WITH CREDIT
I = INCOMPLETE
L = LOSS OF CREDIT
N = NOT ENOUGH TIME IN CLASS TO EVALUATE

The semester course averages are computed as follows:
Quarter one: = 40% of the semester grade
Quarter two: = 40% of the semester grade
Semester exam: = 20% of the semester grade

The final grade for a year long course is computed as follows:
Semester one: = 50%
Semester two: = 50%

Incomplete grades must be completed no later than 10 school days from the end of the past quarter or a grade of F will be issued. In the case of a long absence or extenuating circumstances, students may request an extension in writing to their administrator no later than the Monday of the third week after the past quarter. If the request is granted, the administration will specify the length of the extension.
SCHOOL COUNSELING DEPARTMENT

Services are delivered by students' counselors. The staff seek to help students develop academic and career goals coupled with a plan for life beyond Manchester High School.

The Student Success Plan (SSP) is the foundation of the M.H.S. student experience within the counseling program. The SSP, which is developed on the Naviance platform, is available through the www.mhsredline.com student/parent portal.

Counselors are ready to assist each student in the pursuit of their goals. In addition to assisting students with their present progress in their academic work, counselors also play an important role in helping students to plan for their post high school life. Monitoring academic progress, requesting student reviews, student assistance team meetings or PPT's if appropriate, are examples of the mechanisms counselors may use to assist students. Counselors, together with students and parents, use the SSP to formulate a plan of action as the student moves toward a successful post high school plan. Communication with other support services staff and outside agencies may be employed, as appropriate. Individual personal counseling is available to assist students who are encountering difficulty with adolescent developmental tasks.

The Student Support Center provides counseling, crisis intervention, and mediation resources, which help to resolve differences and support each other in time of need.

Services available:
- Peer Mediation
- Mentoring
- Counseling (individual and group)
- Focus groups for students (academic, behavior, social)
- Transitional Programming for students entering grade 9

The goal of the School Counseling Department is to assist all students to ensure success at MHS. Parents may contact their student’s counselor as needed for further information or help.

School Social Workers are the link between home, school and community. The social worker promotes and supports students’ academic and social success by providing specialized services that include: individual and group counseling, crisis prevention and intervention, social development assessments, advocacy for students, parents and the school, as well as home visits. She/he collaborates with community agencies and organizations and provides information and referrals to students and parents. They can provide support groups for students and parents, as well as parent education and training. The social worker works closely with the counselors, administrators, teachers, school psychologists, and other staff to help provide a strong support system for the student.

The School Psychologists provide individual consultations and testing, if needed. The psychologists also provide individual psychological testing for students (recommended by a PPT) and interpret test results to parents and staff.

SPECIAL OPTIONS***

Homebound Instruction
Homebound instruction is intended for long-term absences. State guidelines indicate that homebound instruction cannot be considered for absences of less than three weeks. However, when it is known that the student will be required to be absent more than three weeks due to illness, hospitalization, surgery, or an accident, then homebound instruction may begin within a period of approximately two weeks after the attending physician recommends the tutoring. Parents/guardians should make homebound requests through their child's guidance counselor.

Married Students
Married students shall have the same educational opportunities as unmarried students.

Pregnant Students
Support services may be available to pregnant students. Any variation from a student’s continuance in regular classes shall be based upon her specific needs.
Experiential Learning Credit Opportunities

Manchester High School offers a variety of experiential learning opportunities that are personalized, innovative, independent and connected to students’ personal interests, passions and aspirations. This learning may happen both inside and outside traditional classroom settings and beyond the conventional school day. Many of these programs have been created in collaboration with local businesses, colleges, universities and other community organizations.

Experiential learning programs are facilitated by a staff member who assists in the design of an individualized program of study that meets the needs of each student. Credit(s) will be awarded based on the successful demonstration of completed hours, assessments or other requirements*. New learning/evidence of growth may include the presentation of a student portfolio, attaining an industry-recognized credential/college credit or completing a culminating capstone project.

Students will participate in regular conferences with their course instructor(s)/mentor(s) and build their existing school-wide profiles and professional resumes by participating in internships, job shadows, workshops, projects or a combination of these activities relating to personal career goals and/or interests. A variety of in person and virtual/simulated experiential learning opportunities are available for students to consider including:

**ND9725 Career Exploratory Internships and Pre-Apprenticeships:**

Students will prepare for and spend time shadowing or training with a professional at a place of employment or school-based/virtual/simulated work environment that matches a career area of interest. Credit hours generally consist of a variety of workshops that will prepare students for the internship experience prior to placement, including resume building, interview preparation, workplace/safety rights, etc. All students in this program will have the opportunity to earn an OSHA 10 workplace safety certificate, a highly valued industry recognized credential. Through the development of authentic experiences that enable engagement in career exploration and immersion, students will have the opportunity to:

- Investigate career areas or occupations to help discover whether they are a good match
- Gain real-world work experience and skills
- Attain valuable experiences that will be useful to include on college applications and resumes
- Understand how their futures can be impacted by what they accomplish in high school
- Research what they need to know and be able to do to succeed in a particular field
- Learn what they can expect with regard to wages and employment potential
- Make contacts in fields of their interest
- Develop career competencies and soft skills

**ND 9715 Community Service External Credit Opportunities**

Students will prepare for and spend time volunteering or completing community service hours at a local organization that interests them and/or matches their unique passions and interests. These experiences aim to provide students with opportunities to:

- Make a positive impact by volunteering and giving back to the local community
- Collaborate with the public and gain skills and experience that stand out on college and scholarship applications and resumes
- Gain real-world work experience and skills
- Develop personal and career competencies and soft skills
- Examples: [Community Service Virtual Choice Board Options](#)
Independent Study Opportunities or Passion Projects: Students may collaborate with a staff member at Manchester Public Schools or an external community-based mentor to design an educational program of study that aligns to personal interests and areas of growth. For example, students may:

- earn an industry recognized credential or certificate (OSHA 10, customer service, coding, ParaPro or Future Educator)
- work on a project of their choice based on personal interests or goals (building a computer, organizing a social justice campaign, taking an online course, etc.)
- write a play, book or movie script
- participate in a local art show
- design a proposal to improve the condition of their local community or school
- enroll in a variety of online or college course options that are available in a myriad of subject areas. These options might include classes taken at Manchester Community College, Goodwin University, or an online/blended learning platform such as KHAN Academy, a Microsoft Office Specialist course or Google IT Support Specialist
- Examples: Passion Project/Independent Study Virtual Choice Board Options

Program Highlights

Students are encouraged to design an experience that aligns to an area of interest that they are passionate about and demonstrates individual growth towards mastery in an area aligned to the Manchester High School Vision of a Graduate. Some recent examples of student experiences include:

- Students working as paid interns at local businesses in fields including accounting, banking, hospitality, etc.
- Students passionate about reducing barriers, ensuring equity and building collaboration skills working with other students and the Office of Equity and Partnerships on initiatives that support this initiative.
- Students working in the school store and learning valuable retail and customer service skills
- Students completing an Internal Revenue Service training program and preparing taxes for local members of the community
- Students interested in criminal justice completing a series of workshops/hands on activities with Manchester Police Officers
- Students could exploring careers in the arts with a professional muralist or showcase their work in local art exhibitions
- Students interested in careers in manufacturing preparing for paid pre-apprenticeship placements
- EMT students preparing for ride along clinical hours with Manchester Fire Rescue or Ambulance Services of Manchester

*Generally, credit awarded will be based on class attendance and/or completion of associated hours:

- A 30-hour experience typically equates to earning ¼ credit
- A 60-hour experience typically equates to earning ½ credit
- More hours are possible based on student interest, availability and placement
- Hours may be a combination of:
  - Class attendance
  - Experiential participation hours and reflections
  - Internship, job shadow, community service hours
Interested in earning experiential learning credit?  
Sign up to explore careers of interest or volunteer in your community!

Many personalized options are available that will help you build your resume, strengthen your college application and/or prepare for success in college or the workforce!

**Career Exploration (ND9725)**

- Students will prepare for EMPLOYMENT in a career area they wish to explore.
- Personalized supports will be provided to all students (resume preparation, mock interviews, workplace rights, etc.). All students will have the opportunity to take an ONLINE class to earn a highly regarded Industry Recognized OSHA 10 Credential.

**Community Service (ND9715)**

- Students will earn credit by volunteering in their community or school - **VIRTUAL OPTIONS AVAILABLE!**
- Many local business/community partners and teachers are ready to provide meaningful opportunities for students to volunteer for a cause related to their individualized interests and goals

**Passion Project, Independent Study or College/Online Learning Experience (ND9705)**

Students may design experiences that assess meaningful learning in external settings and beyond the conventional school day or walls of the building -- **VIRTUAL OPTIONS AVAILABLE!** Some examples include:

- Taking a class at Manchester Community College or an online at Khan Academy (or other learning platform platform of interest)
- Working with an artist or writer to create an artifact that is enjoyed by the local community
- Collaborating with other students and the office of Equity and Partnerships to reduce barriers and support initiatives that promote equity for all
- A variety of programs are available that prepare students to earn an industry recognized credential. Examples include:
  - ParaPro
  - Future Educator
  - ServSafe
  - The list is endless!

Credit awarded for each experience MAY be dependent on hours completed.

See your school counselor or Ms. Gibbons in Room 208 for more information!
College Credits

Students have the potential to receive college credits in the following courses:

**Advanced Placement Courses**
Many colleges will award a college credit when a student earns a 3, 4, or 5 on the AP Exam.

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Art History</td>
<td>Computer Science A</td>
<td>European History</td>
<td>Spanish Language</td>
</tr>
<tr>
<td>Biology</td>
<td>English Language</td>
<td>Microeconomics</td>
<td>Culture</td>
</tr>
<tr>
<td>Calculus A/B</td>
<td>English Literature</td>
<td>Music Theory</td>
<td>AP Studio Art</td>
</tr>
<tr>
<td>Calculus B/C</td>
<td>Environmental Science</td>
<td>(alternate years)</td>
<td>U.S. Gov &amp; Politics</td>
</tr>
<tr>
<td>Chemistry</td>
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<td>Physics I</td>
<td>U.S. History</td>
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<td>Psychology</td>
<td>World History</td>
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**University of Connecticut Early College Experience Courses**

<table>
<thead>
<tr>
<th>American Studies</th>
<th>Human Dev &amp; Family Studies</th>
<th>Latin American Studies</th>
<th>UConn Conflict &amp; Peace Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Maritime Culture</td>
<td>Human Rights</td>
<td>Medical Terminology</td>
<td>UConn Senior English</td>
</tr>
<tr>
<td>AP/UConn U.S. History</td>
<td>Intro to Allied Health</td>
<td></td>
<td>UConn Spanish 5</td>
</tr>
<tr>
<td>Elementary Discrete Math</td>
<td>Professionals</td>
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</tbody>
</table>

**University of Connecticut Early College Experience (ECE)**, offers the opportunity for students to earn high school credit, as well as credit at the University of Connecticut. The courses are taught at MHS by university-approved MHS faculty and follow the UCONN syllabi. Taking these courses enables students to begin college study early and perhaps complete requirements or allow for supplementing their college programs with electives in their special interest area. Credits may be transferred to other colleges, but the transfer of such credits is determined by the policy of each college.

Acceptance into the program is determined by UCONN. ECE courses are identified in course descriptions. There is a per credit fee which is payable directly to UCONN. Students who participate in the free & reduced priced lunch program will have the fee waived.

**Manchester Community College Career Pathways Courses**

<table>
<thead>
<tr>
<th>College Accounting</th>
<th>Engineering Drawing Interpretations</th>
<th>Intro to CAD 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financial Literacy</td>
<td>Web Page Design</td>
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<tr>
<td></td>
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<td>Microsoft Office Applications</td>
</tr>
</tbody>
</table>

Denotes possible College Credit throughout catalog = 🏠
EPSA
Education and Public Service Academy

Overview: The Education and Public Service Academy is designed for students who share an interest and desire to explore career paths related to human services with a focus on Education, Social Work, Psychology, and Criminal Justice. EPSA aims to cultivate the great educators, investigators, and human service professionals of tomorrow through engaging coursework and working collaboratively with community partners to provide students with meaningful extended learning experiences. The Education and Public Service Academy is committed to developing the skills necessary to pursue careers that better support our community and our world.

Advantages of joining the Education and Public Service Academy:

- Introduction to EPSA provides students with an opportunity to explore careers that are connected to students’ interests.
- Access to individual speakers and panels from a wide variety of academy related professions.
- Academy aligned electives
- Field trips connected to students’ interests
- Opportunities to earn college credit through our ECE courses
- Opportunities to earn credit while engaging in internships and job shadowing experiences
- MHS offers a wide variety of clubs that provide students with experiences directly connected to the field of human services including; Best Buds, LINK Crew, and Police Explorers

Academy Highlights:

- EPSA student advisory panel to ensure student voice in the academy
- EPSA Character Award created by students and awarded monthly
- Nearly 10 percent of academy students have joined Police Exploration and Learning Experiences-PELE

Advisory Boards: The EPSA Student Advisory Board is voluntary and welcomes any interested students who are interested in having a voice in the academy. This board provides input and planning for Academy assemblies, generating new ideas for Academy activities and providing input and feedback to the academy teachers, administrators and community partners.
## Potential Career Pathways / Related Courses:

### Teacher

<table>
<thead>
<tr>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
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<tbody>
<tr>
<td>- Introduction to EPSA</td>
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<tr>
<td>- World of Children</td>
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<td>- Introduction to Early Childhood Education</td>
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<tr>
<td>- Unified PE</td>
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<tr>
<td>- UCONN Human Development and Family Studies</td>
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<tr>
<td>- Psychology</td>
<td></td>
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<tr>
<td>- African American History</td>
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<tr>
<td>- UCONN Latin American History</td>
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### Criminal Justice/Law

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<th>Grade 10</th>
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<tr>
<td>- Introduction to EPSA</td>
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<tr>
<td>- Sociology</td>
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<tr>
<td>- Abnormal Psychology in American Literature</td>
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<tr>
<td>- Criminology</td>
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<tr>
<td>- ESPA Experience</td>
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<tr>
<td>- Law and Order</td>
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<td>- Forensic Science</td>
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<tr>
<td>- Law in American Society</td>
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<tr>
<td>- AP Psychology</td>
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### Social Worker

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<tr>
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<td>- AP Psychology</td>
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### Psychologist

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<tr>
<td>- AP Psychology</td>
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*Bold* denotes required coursework. Additional listed courses are recommended.

**Additional Academy related electives include**: Forensics, Psychology, and Independent Study / Internship opportunities.
Overview: The Global Studies Academy (GSA) is a place for students to explore their abilities, skills and possible career interests. Active participation in coursework and experiential learning ignites students' exploration of academic ideas and career interests from a local and global perspective. Students are provided opportunities to broaden their global understandings and develop an appreciation of the heritage and values of people from various cultures which will further facilitate their global competence and positive global citizenship. Students who have an interest in foods, business, philosophy, world languages and cultures will have the opportunity to participate in specific courses and extracurricular opportunities. A detailed description of each of these elements is outlined below. In GSA we aim to support students who desire to participate in a wide range of opportunities in order to explore their interests and find their passions. We strive to provide a variety of activities to support this self discovery process. Students’ career interests in this Academy may include just about anything. You dream it and we'll help you explore it!

GSA Elements

1. **Truth** students take Truth Seminar courses that focus on exploring questions from philosophical and interdisciplinary frameworks, such as, “What is true?” and “How can truth be known?” Students also engage in various activities to enhance learning and broaden their perspectives, such as field trips and MHS Truth Talks/TedX Conferences.

2. **SILK (Students In Love with the Kitchen)** students gain hands-on, real-world experience working in school-based kitchens, restaurants, bakeries, stores and catering businesses. They build knowledge and develop skills necessary to effectively create, market, prepare and sell products. Students have the opportunity to work in the MHS Silk City Cafe, earn internship credits, Manchester Community College credit and take the ServSafe certification course which provides students with the opportunity to earn an industry recognized certification useful for employment in restaurants and kitchens nationally.

3. **Entrepreneurship** students explore economic and business issues through a global lens.

4. **World Languages & Cultures** students learn languages and experience cultures of Spanish, French, Italian, Chinese and Latin.

Advantages to joining the Global Studies Academy:
- Opportunity to explore a broad range of interests and careers tailored to students’ needs.
- Enroll in the quarter-long required Grade 10 Global Studies Seminar, which supports GSA students’ understandings of the complexities of living, learning and working in a globalized society.
• Participate in a variety of field trips, and attend “Speakers Series” and panel presentations to learn about careers in business and the food industries, as well as other globally relevant topics.
• Earn internship credit and engage in real-world hands-on experiences by working in Silk City Cafe or other kitchens, restaurants and bakeries within the Manchester community.
• Receive mentoring by professionals in the restaurant industry and other food industries.
• Opportunities to earn certifications in ServSafe Food Handler and Volunteer Income Tax Assistance (VITA), at no cost to the student. The ServSafe Food Handler Certification is a food and beverage safety training and certificate program administered by the National Restaurant Association. The VITA certification is an accounting internship program. Students receive training in tax law to support them in providing tax preparation services to families with household incomes up to $55,000. Both certifications can be included on students’ individualized MHS Profiles and resumes and could help students get a great job in high school and beyond.
• Participate in and/or attend the “MHS Truth/TEDx Talks.”
• Earn College Career Pathway credit through MCC.
• Possible GSA aligned sections of core classes (i.e. English, Social Studies, Spanish) with a GSA teacher who can support your involvement in various GSA opportunities, events and field trips.

Academy Highlights:
• GSA student led Harvest Pack event at MHS. 150 students participated in this school-wide activity in the two years of hosting this event.
• All ten students who took the ServSafe Food Handler certification course in March of 2019 with Chef Ben of Bistro on Main and MACC passed the certification exam with a 75% or higher. Six of the ten students scored a 90% or above.
• GSA students have participated in a dozen different activities, some created by our students and staff such as internships, the Culinary Exploration Opportunity Fair, ServSafe certification course, Yard Goats Food Industry field trip, NYC 911 Museum & Observation Deck, and our annual Harvest Pack event where we package and send food to a country with the most significant nutritional needs as determined by Harvest Pack. Students have also participated in the Reality Fair, the Manchester Chamber of Commerce Chef’s Challenge, the Customer Service adult education course, and the VITA certification course to be a IRS Tax Preparation Volunteer and have worked the voting polls.

Advisory Boards: The Global Studies Academy is advised by two boards. The Student Advisory Board consists of GSA student volunteers and staff who collaborate to design ideas for academy activities, plan academy assemblies and provide input and feedback to academy staff to help create programs and opportunities that meets the needs and interests of all students. The Community Advisory Board serves as a sounding board for academy ideas and initiatives. This group provides expert feedback and guidance to help us plan programming to support the development of students’ skills and abilities needed as they prepare for life after high school. This group includes community professionals such as chefs, business owners, public service personnel and employers.
# Potential Career Pathways / Related Courses:

## SILK

*(grade 10)*
- GSA Seminar

*(grade 10-12)*
- Introduction to Culinary Arts
- Advanced Culinary Arts
- Bake Shop 1
- Bake Shop 2
- Nutrition for Fitness
- International Foods
- Silk City Intern

## Truth (Philosophy)

*(grade 10)*
- GSA Seminar

*(grade 10-12)*
- Truth Seminar - Persuasion
- Truth Seminar - Ethics
- Statistics
- Scientific Principles of Technology
- Science Research 1
- Forensics
- Creative Writing

*(grade 11 - 12)*
- Science Research 2

## Global Policy

*(grade 10)*
- GSA Seminar

*(grade 10-12)*
- International Business

*(grade 11 - 12)*
- Statistics

*(grade 12)*
- Economics
- African-American History
- Latin-American Studies
- Psychology
- Sociology

## World Languages & Cultures

*(grade 10)*
- GSA Seminar

*(grade 10-12)*
- World Language Courses in Spanish, French, Italian, Latin & Chinese

*(grade 12)*
- African-American History
- Latin-American Studies
- AP European History
- AP Art History

## Entrepreneurship

*(grade 10)*
- GSA Seminar

*(grade 10-12)*
- School Store Internship
- Entrepreneurship in the Restaurant, Food and Beverage Industry
- International Business
- Introduction to Business
- Management and Leadership Foundations
- Marketing 1
- College Accounting
- Personal Finance
- Financial Literacy

*(grade 12)*
- Credit Union Internship
- - Economics
Overview: The healthcare field contains a tremendous variety of career opportunities, and the majority of them show great growth in demand every year. The Medical Careers Academy is designed to help students interested in any medically related field, or just health care in general, to explore these varied career opportunities. Students in the Academy have shown interests ranging from medicine and nursing, to areas as diverse as veterinary, physical therapy, athletic training, forensics, psychology, cancer treatment, and many more. It is our goal to facilitate the students’ development into future healthcare professionals, through hands-on training and one-on-one guidance provided by faculty and staff. Furthermore, the Academy strives to develop the community connections necessary to provide students with meaningful real world experiences, and to be sure our program stays in touch with the needs of our students and the healthcare community.

The Medical Careers Academy is dedicated to developing the academic and non-academic skills necessary to care for others and enter the medical field at any level.

Advantages to joining the Medical Careers Academy:
- An opportunity to investigate careers in the healthcare field that match student interests and abilities.
- Access to individual speakers and panels from a wide variety of health and related professions.
- Possible academy aligned core subjects with curricula that embed medically related issues, across disciplines.
- Field trips to various medical facilities and other related activities.
- Opportunities to earn certifications including CNA and EMT.
- Opportunities to be mentored by medical professionals.

Academy Highlights:
- Nearly 10 percent of academy students complete certification coursework for EMT or CNA before graduating.
- MCA students earned scholarship money for seniors by hosting Red Cross Blood drives and meeting donation goals.
- HOSA students received 6 first or second place awards at the spring competition.

Advisory Boards: The Medical Careers Academy is currently advised by two boards—one involving community members, and one involving students. The Student Advisory Board is voluntary and welcomes any interested students. Projects include planning Academy assemblies, generating new ideas for Academy activities, and providing input and feedback to the academy teachers and administrators. The community advisory board provides feedback on curriculum, programming, and equipment and includes representatives from Ambulance Services of Manchester, Manchester Fire and Emergency Medicine, TouchPoints iCare and more.
Potential Career Pathways / Related Courses:

**Doctor**
(grade 10)
- Biology or Biochemistry 1
- Investigations in Health Careers
(grade 11)
- Chemistry or Biochemistry 2
- Patient Care
- Human Anatomy and Physiology
(grade 12)
- Physics or AP Physics 1
- AP Chemistry
- AP Biology
- UConn ECE Medical Terminology

**Nursing**
(grade 10)
- Biology or Biochemistry 1
- Investigations in Health Careers
(grade 11)
- Chemistry or Biochemistry 2
- Patient Care
- CNA Certification Course
(grade 12)
- Physics or AP Physics 1
- Human Anatomy and Physiology
- Human Development & Family Studies

**Emergency Medicine**
(grade 10)
- Biology or Biochemistry 1
- Investigations in Health Careers
(grade 11)
- Chemistry or Biochemistry 2
- Patient Care
(grade 12)
- EMT Certification Course
- Physics or AP Physics 1
- Human Anatomy and Physiology

**Pharmacy**
(grade 10)
- Biology or Biochemistry 1
- Investigations in Health Careers
(grade 11)
- Chemistry or Biochemistry 2
- Science Research
(grade 12)
- Physics or AP Physics 1
- AP Chemistry
- Human Anatomy and Physiology
- UConn ECE Medical Terminology

**Physical Therapist**
(grade 10)
- Biology or Biochemistry 1
- Investigations in Health Careers
(grade 11)
- Chemistry or Biochemistry 2
- Patient Care
(grade 12)
- Physics or AP Physics 1
- Human Anatomy and Physiology
- Sports Medicine
- Nutrition for Fitness

*Bold denotes required coursework. Additional listed courses are recommended.

Additional Academy related electives include: Forensics, Veterinary Science, Psychology, and Independent Study / Internship opportunities.
PAC
Performing Arts & Communications Academy

Overview: PAC offers students the opportunity to explore a variety of interests in the performing arts and communications realms. Students in the academy have the opportunity to work with professionals in their field: actors, singers, dancers, musicians, costume designers, cosmetologists, journalists, photographers, videographers, editors. Our goal in PAC is to foster a community in which students can take creative risks with performances and products, effectively communicate in a variety of contexts, express ideas in symbolic, metaphorical, and creative ways, turn ideas into reality with concrete action steps and use of available resources, and provide opportunities to grow and learn about the performing arts and communication while they develop career-ready capacities and abilities. Students in PAC have the opportunity to intern or job shadow with local performing artists and journalists/broadcasters.

Advantages of Joining PAC
● PAC Student Activities Board
● Workshops with professional artists, including SeaTea Improv
● Co-taught classes with industry professionals
● Academy aligned core classes
● Access to academy aligned elective classes
   • Advanced Guitar
   • Audio Production
   • Beginning Guitar
   • Digital Music I, II, & III (Aud. Prod./CMC)
   • Hair and Makeup for the Stage
   • Jazz Ensemble
   • Music Theory
   • Piano / Keyboarding
   • Contemporary Media
   • Photography
   • Contemporary Communications
   • Video Production
   • Studio Production
   • Music Appreciation
   • Musical Theater
   • Sports Broadcasting
   • Broadcast Journalism
   • Graphic Design
   • Yearbook
   • Songwriting
   • Dance Ensemble
   • Theatre Arts
   • Acting

● PAC Seminar to explore career interests
● Opportunity to earn external credit through internship experiences
● Internships with Little Theater of Manchester and CAST
● College field trips
● NYC Broadway Trip
● School sponsored clubs including Broadcast’s Red Productions, Sock and Buskins Drama Club, Handbell, Chorus, Marching Band

Academy Highlights
● Award winning Music programs
● Student Television News Contest Winners
● Student run news publication, The Nest

Advisory Boards: PAC Student Advisory Board is open to any PAC student who is interested in helping to field plan trips, student recognition, work with community partners to create workshops based on student interest, and advise administration and staff on developing new courses that are of interest to students.
### Potential Career Pathways/Related Coursework

#### Dance/Performance

<table>
<thead>
<tr>
<th>Grade 10</th>
<th>Grade 11</th>
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</thead>
<tbody>
<tr>
<td>PAC Sophomore English</td>
<td>PAC Sophomore English</td>
<td>PAC Sophomore English</td>
</tr>
<tr>
<td>PAC Seminar</td>
<td>PAC Seminar</td>
<td>PAC Seminar</td>
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<tr>
<td>Dance</td>
<td>Dance</td>
<td>Dance</td>
</tr>
<tr>
<td>Hair and Makeup for the Theater</td>
<td>Hair and Makeup for the Theater</td>
<td>Hair and Makeup for the Stage</td>
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<tr>
<td>Musical Theater</td>
<td>Musical Theater</td>
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<tr>
<td>Music Appreciation</td>
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#### Broadcast

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<tr>
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<td>PAC Sophomore English</td>
<td>PAC Sophomore English</td>
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<td>PAC Seminar</td>
<td>PAC Seminar</td>
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<td>Video Production</td>
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<td>Sports Broadcast</td>
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<tr>
<td>Graphic Design</td>
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#### Theater/Performance

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<td>PAC Seminar</td>
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<td>Acting 1</td>
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<tr>
<td>AP Music Theory</td>
<td>Hair and Makeup for the Stage</td>
<td>Hair and Makeup for the Stage</td>
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<tr>
<td>Fashion Design I &amp; II</td>
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#### Journalism (Print)

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<tr>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
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<tbody>
<tr>
<td>PAC Sophomore English</td>
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<td>Contemporary Journalism</td>
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<th>Grade 11</th>
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<td>Creative Writing</td>
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<td>Yearbook</td>
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<tr>
<td>Graphic Design</td>
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**Note:** The table is structured to represent different career pathways with related coursework for different grades.
Music

(grade 10)
- PAC Sophomore English
- PAC Seminar
- Band
- Chorus
- Orchestra 9/10
- Song Writing
- Digital Music
- Piano
- Guitar

(grade 11)
- Band
- Chorus
- Orchestra 11/12
- Song Writing
- Digital Music
- Piano
- Guitar
- AP Music Theory

(grade 12)
- Band
- Chorus
- Orchestra 11/12
- Song Writing
- Digital Music
- Piano
- Guitar
- AP Music Theory

Core Classes:
English, World History, and UConn Human Rights

STEM-D Academy
(Science, Technology, Engineering, Math and Design)

Overview: Technology is moving at unprecedented rates and in constantly changing formats. The STEM-D academy is designed to provide students with the skills necessary to succeed in this ever-changing and incredibly diverse field. Students in the academy have shown interests including mechanical engineering, auto mechanics, electronics, carpentry, research and development, architecture, various fields within science, and computer science, programming, manufacturing and engineering. Students will be given regular opportunities to create authentic projects that are directly connected to both their academic instruction and the community. The academy focuses on student-centered learning, and actively focuses on developing problem solving and critical thinking in students, particularly through the engineering design process. Students can explore careers and develop specific skills through numerous course offerings, and we are developing job shadowing opportunities as well. Experiences and course offerings are continually being designed based on the interests and input of the students.

Advantages to joining the STEM-D Academy:
- An opportunity to investigate careers in the STEM areas that match student interests and abilities.
- Access to individual speakers and panels from a wide variety of science, technology, engineering, and mathematics professions.
- Possible academy aligned core subjects with curricula that embed STEM related issues and content, across disciplines.
- Field trips to various engineering, manufacturing, and science research facilities, and other related activities.
- Priority enrollment in more than 20 STEM-D based elective courses.
- Opportunities for career preparatory training and certifications including paid pre-apprenticeships in manufacturing and information technology.

Academy Highlights:
- State Championship winning E-Sports team in League of Legends
- Girls Who Code Club and Hour of Code annual event in December
- Nearly 10 percent of academy students complete a paid experience in manufacturing or information technology annually.

Advisory Boards: The STEM-D Academy is currently advised by two boards—one involving community members, and one involving students. The Student Advisory Board is voluntary and welcomes any interested students. Projects include planning Academy assemblies, generating new ideas for Academy activities, and providing input and feedback to the academy teachers and administrators. The community advisory board provides feedback on curriculum, programming, and equipment and includes representatives from Paradigm Precision, ACMT, Spartan Aerospace, Atlas Precision Manufacturing and more.
### Potential Career Pathways / Related Courses:

#### Precision Manufacturing
**Grade 10**
- Explorations in STEM
- MCC Engineering Drawing Interpretations
- Geometry

**Grade 11**
- MCrs
- MCC Safety in the Workplace
- Algebra 2

**Grade 12**
- MCC Conventional Manufacturing Processes Lab
- CAD 1/2

#### Skilled Trades

1-2 Credits Annually in:
- MCC CAD
- Tools and Materials 1/2
- Automotive Technology 1/2
- Construction Technology 1/2
- Architecture 1/2
- Electronics Technology 1/2

#### Information Technology
**Grade 10**
- Explorations in STEM
- Computer Programming 1
- Electronics Technology

**Grade 11**
- IT Internship Phase 1/2 (Unpaid)
- AP Computer Science A

**Grade 12**
- IT Internship - Phase 3 (Paid)
- Mobile App Design
- Game Design

#### Data Scientist / Engineer
**Grade 10**
- Honors Precalculus
- Computer Programming 1

**Grade 11**
- Honors Calculus or AP Calculus AB
- AP Computer A

**Grade 12**
- UConn Concepts of Elementary Statistics
- AP Calculus BC

#### Mechanical Engineer / Electrical Engineer
**Grade 10**
- Explorations in STEM
- Biology or Biochemistry 1
- Algebra 2

**Grade 11**
- Engineering Design
- Chemistry or Biochemistry 2
- CAD 1
- Precalculus
- Science Research

**Grade 12**
- Physics or AP Physics 1
- Honors / AP Calculus
- AP Chemistry
- Electronics 1
- CAD 2

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*Bold* denotes required coursework. Additional listed courses are recommended. Additional Academy related electives include: Photography, Broadcast Journalism, Aviation and Aerospace, Radio Broadcasting, Robotics Yearbook, Video Production, and Independent Study / Internship opportunities.
ACADEMY SPECIFIC COURSES

Education & Public Services Academy

**FC9516  Introduction to Education and Public Services Academy—Unleveled**  
Q1/Q2 10-12  .25 CR  
This course is for students entering the Education/Public Services Academy. The focus of instruction will include student centered activities that examine careers in Education and Public Service. Students will be exposed to guest speakers from various occupations and engage in panel discussions with many professionals. Exploration will include issues, policies and trends in education and public service as well as topics of diversity and equity, law and ethics.

**EN8033 Abnormal Psychology in American Literature—Multi-level**  
11  1.0 CR  
Available to EPSA juniors only (or administrative approval), this college prep English course examines American literature through a psychological lens. Students will explore the roles of development, mental illness, stress, and addiction as they pertain to American authors, classic literary characters, and the collective American identity. This course will be team taught by members of the Social Studies and Language Arts faculty and will emphasize close, thoughtful reading, in-depth research, and careful expression in spoken and written communication.

Global Studies Academy

**ND9611 Global Studies Academy Seminar**  
1Q 10 .25 CR  
Preferably taken as an overview of the Global Studies Academy during the GSA student's sophomore year. Course provides students with an opportunity to better understand each of the elements within the GSA Academy while offering an introduction to the complexities of living, learning and working in a globalized world. Students experience in this course will culminate in a deeper dive into individual interests through a passion project.

Medical Careers Academy

**SC9106 Investigations in Health Careers—Unleveled**  
Prerequisite: Enrolled in the Medical Careers Academy or permission of Academy Administrator  
10 .50 CR  
Students in this course will explore assorted career clusters such as Dentistry, Veterinarian Services, Medical Imaging, Therapeutic Services, Sports Medicine, Nursing, Emergency Medical Technician and Pharmacy Services. Students will expand their knowledge by completing labs embedded with clinical skills related to their interests. Course topics will also include medical legal issues, ethics, basic anatomy and physiology, medical terminology, and public health. Students will complete a personalized research project to determine a tangible pathway for a healthcare career that works for them.

**SC9117 Sports Medicine—Unleveled**  
Prerequisite: Investigations in Health Careers or permission of Academy Director  
2S 11-12 .50 CR  
Students are introduced to the discipline of kinesiology and recreation. They will study the effects of physical activity on human beings. Topics will include exercise physiology, biomechanics, motor behavior and socio/psychological perspectives of participation in activity through the lifespan. Students will also investigate how the discipline can be applied professionally. A Physical Therapy Assistant certification opportunity may be developed in the future, but is not currently available.
SC3327 Veterinary Science—College Prep  
1S/2S  11-12  .50 CR

Prerequisite: Investigation in Health Careers OR Permission of Academy Director

This course will focus on the study of disease, treatment, nutrition, as well as proper handling techniques of domestic animals and livestock. An introduction to general anatomy and physiology and comparative anatomy will be covered, when relevant. This course will prepare the students for potential job shadowing opportunities in a veterinary clinic.

Performing Arts & Communications Academy

PA9716 Performing Arts & Communications Academy Seminar —Unleveled  
1Q/2Q/3Q/4Q  10-12  .25 CR

This is a recommended course for all PAC students that may be taken during sophomore or junior year (optional for the students in the Classes of 2017 and 2018). Teachers will work closely with the students to identify and pursue personalized explorations and career pathways (performing arts and communications or otherwise) that meet the students' needs and interests. This may include experiential learning or in-depth research designed to prepare students for an independent capstone project.

Science, Technology, Engineering, Math and Design Academy

TI8105 Explorations in STEM—Multi-Level  
1S/2S  9-12  .50 CR

Students will complete a variety of projects while using computer software programs and workshop tools/equipment to discover concepts of communication, construction, transportation, manufacturing, design, and engineering. Class activities include Internet Research, Basic understanding of the Computer, Bridge Design, Architecture, Laser Manufacturing, Magnetic Levitation, Robotics and more.
ART DEPARTMENT

Visual arts are essential to your complete education. Study in the visual arts helps develop your intellect and provides you with the skills necessary for effective communication, and problem solving by teaching you to:

- Create artworks that express concepts as well as your ideas and feelings.
- Respond with understanding to diverse artworks.
- Understand and use materials, techniques, forms and language relevant to visual arts.
- Understand the importance of visual art in expressing and illuminating human experience, beliefs and values.
- Identify works of art and recognize characteristics of art from different historical cultures and periods.
- Develop mastery in at least one art form to continue lifelong involvement as a responder and a creator.
- Develop mastery in preparation for a career.
- Participate in the artistic life of the school and/or community.
- Understand the connection between visual arts and daily life.

We encourage all students at MHS to take advantage of the many art course offerings we have for beginning and advanced level study.

For students considering going to Art School or considering a career in the arts it is highly recommended that students take the beginning drawing class.

The major goal of the Art Department is to develop the students’ creative skills as well as their recognition of the artistic achievements of others. The students will develop and demonstrate an awareness and understanding of the diversities of American and World Cultures through the arts. They will be encouraged to challenge themselves and strive for excellence in their own artwork. The courses will encourage personal growth through the exploration of career goals in the art field.

The Art Department offers the following courses:

### 2 Dimensional Art Courses
- Explorations in Art & Design*
  - Digital Art
  - Drawing*
  - Advanced Drawing
  - Painting
  - Advanced Painting
- Advanced Placement Studio Art
- Portfolio Preparation
- Comic Design

### 3 Dimensional Art Courses
- Explorations in Jewelry Making*
- Sculpture*
- Metalsmithing/Jewelry*
- Advanced Jewelry/Metals
- Ceramics*
- Advanced Ceramics
- Wheel Throwing Pottery

* Courses with an asterisk (*) have no sequential requirements.

Career Ideas in Art:
- Architect
- Animation
- Craftsperson
- Designer
- Digital Media Artist
- Gallery
- Curator
- Illustrator
- Museum Curator
- Photographer
Two Possible Sequences for Students Interested in Art Schools After High School:

1. **FRESHMAN**
   - Explorations in Art and Design
   - Drawing

2. **FRESHMAN**
   - Explorations in Jewelry Making
   - Drawing or Ceramics or Explorations in Art & Design

**BEGINNING LEVEL COURSES**

**AR3315 Explorations in Art and Design—College Prep**

1S/2S 9-12 .50 CR

Students will explore the idea of art as a tool of communication. A variety of art making processes and techniques will be explored including drawing, painting, printmaking and collage. Individual projects will be assigned along with the reading and research of a vast array of artists from around the world.

**AR8125 Drawing—Multi-Level**

1S/2S 9-12 .50 CR

This course is a prerequisite for Advanced Drawing and Painting. It is recommended for all students planning a career in the Fine Arts, commercial arts and architecture. Students will focus on improving observational drawing skills by looking at a variety of objects and drawing them. The self portrait is emphasized as a traditional subject matter. The course focuses on a variety of drawing media, design skills, shading and perspective to create the illusion of three dimensions. Students may petition for College Prep level credit. This course builds technical skill and enhances hand-eye coordination through a variety of 2D lesson activities. Students can expect to gain a fundamental knowledge of the Elements and Principles of Art, and have opportunities for self and peer reflection to develop their skill and creativity.

**AR8105 Explorations in Jewelry Making—Multi-Level**

1S/2S 9-12 .50 CR

In this class, students will design one of a kind pieces of jewelry while becoming familiar with the jewelry studio and its tools and materials. Students will work with metal sheet, wire, beads and glass using jewelry tools such as saws, files, pliers, stamps, drills, and hammers. Students will explore different ways of connecting parts through cold connections such as rivets, jump rings, tabs, and screws. In addition, students will learn a variety of versatile metalsmithing techniques from chasing and design stamping to roller texturing on metals to create unique surfaces for original jewelry designs.
Students will design and create one-of-a-kind jewelry pieces while learning a variety of jewelry making techniques including silver soldering. Students will gain knowledge in jewelry making techniques and tool use such as sawing, filing, stamping, rolling, piercing, soldering, sanding, polishing and stone setting. Students will research and sketch ideas, learn how to lay out a design and bring the idea to life with metal, wire and other objects. The proper use, care, storage and safety of art materials will be taught in addition to an understanding of the elements and principles of art and design. Students will be encouraged to communicate an idea through their works of art by using media, methods, and concepts appropriate to their intent.

AR8145 Ceramics—Multi-Level
1S/2S 9-12 .50 CR
This is a course in functional and non-functional ceramic design. Basic forming techniques (coil, pinch and slab!) will be used to make a variety of projects. Firing and glazing techniques will be explored.

AR8315 Wheel Throwing Pottery—Multi-Level
1S/2S 10-12 .50 CR
Prerequisite: Ceramics
Wheel thrown pottery is pottery created on a potter’s wheel. You attach a ball of clay to the wheel, it spins, and the artist sculpts the ball of clay into a pot. It sounds easy, but as any pottery student can tell you, it’s pretty challenging. The students must first learn to center the clay, then open the pot and draw up the walls. After they successfully create a pot, they still have to learn to trim, detail, glaze, and sometimes pull & attach a handle. Students will be excited to create utilitarian pieces that are food and dishwasher safe forms such as bowls, mugs, and plates.

AR8165 Sculpture—Multi-Level
1S/2S 9-12 .50 CR
This course explores three-dimensional experiences in sculptural media. Additive and subtractive sculpture techniques will be included using media such as paper, cardboard, yarn, wire, plastic and wood as students create sculptural forms. Student projects allow for creative problem solving and individual interpretation.

ADVANCED LEVEL COURSES

AR2026 Advanced Drawing—Honors
10-12 1.0 CR
A B+ or higher in Drawing unless approved by the class instructor is required to enroll in this course.
This is a full year course recommended for students who have a strong interest in drawing. A variety of media including colored pencils, graphite, pastels, pen and ink, charcoal and collage is utilized. Mark making techniques are explored through observational and imaginative subject matter. You will need to purchase a sketchbook for homework assignments.

AR8136 Painting—Multi-Level
1S/2S 10-12 .50 CR
Sequential: Drawing unless approved by the class instructor
This is an introduction to painting using acrylic paint on canvas. You will learn basic painting techniques and color theory. Subject matter may include the still life, landscape, and abstraction. You will study in depth a number of well known painters. You will need to purchase a sketchbook for homework assignments.

AR2236 Advanced Painting—Honors
2S 10-12 .50 CR
A B+ or higher in Painting unless approved by the class instructor is required to enroll in this course.
This course is recommended for students who have a strong interest in painting and wish to pursue advanced techniques. Subject matter includes the still life, landscape, and portrait on larger sized canvases. You will need to purchase a sketchbook for homework assignments. Students may elect to receive honors level credit for this course.

AR2256 Advanced Ceramics —Honors
1S/2S 10-12 .50 CR
Sequential: 85 or better in Ceramics unless approved by the class instructor.
The students will work on variations of the basic forming techniques in pottery. The planning of projects will involve historical research on design and procedures. This ceramics course will have an emphasis on learning and mastering the potter’s wheel. The course may be repeated twice for credit with an emphasis on individual and advanced projects.
AR8286  Advanced Jewelry/Metals— Multi-Level  1S/2S  10-12 .50 CR
Prerequisite: Metalsmithing
Students with previous experience will be introduced to more advanced jewelry and metalsmithing techniques. The projects may include but are not limited to chain making, stone setting, enameling and forming and raising of metal. Demonstrations and discussion support in-class work and experimentation are encouraged. Individual research of historical and contemporary metal art will inspire work. The use of precious metals or stones are at the students’ own expense. Students who desire to do more in-depth work in the course may request honors level within the first two weeks.

AR2144 Portfolio Preparation—Honors  1S  12 .50 CR
Sequential: Painting or Advanced Drawing unless approved by the class instructor
The course is designed for students who are contemplating a career in some field of art. Projects will be done in various two dimensional media, including creative work with computer graphics, mixed media and traditional techniques. It will help them to prepare and organize their work for presentation to prospective employers or for college admission. It is recommended that students electing this course have taken as many additional art courses as possible before their senior year. Students may elect to receive honors level credit for this course. In addition to the regular curriculum, honors level students will fulfill an additional set of requirements each quarter. This option is available by arrangement with the instructor.

AR1007 Advanced Placement—Studio Art  11-12  1.0 CR
Sequential: Advanced Painting or Advanced Drawing unless approved by the class instructor
This is a rigorous college level experience emphasizing an area of studio art in depth. The work produced is critiqued on the basis of college standards. Throughout the course, criticism and relevant art history information will be addressed. The Advanced Placement Program is a cooperative education endeavor of the College Board. Advanced Placement in Studio Art is a full year program of study. A minimum of a B average in Drawing, Advanced Drawing, Painting and at least one other studio class, as well as a teacher recommendation are required. There is a lab fee for this course. All students are required to complete the AP Portfolio. If you elect not to send it to the College Board, you will receive Honors Level credit. For AP Level credit, you must pay the fee and submit the portfolio to the College Board.

AR8305  Comic Design—Multi-Level  1S/2S  9-12 .50 CR
In this course we will create works that explore the potential of visual literacy through the medium of comics. In it, we will create visual puns, political statements, story-telling with pictures and words, and develop an understanding of how pictures can move or even change meaning. The course also explores different comic forms including panels, strips, splash pages, and multi-panel pages. This is not so much a class on drawing, but rather a course on communication through visual media, making it accessible to students of all skill levels of drawing. Students can expect mainly hands on tactile drawing media like pencil, copic markers, and tools and techniques for duplicating/tracing their designs.

AR8525 Digital Art and Design — Multi-Level  1S/2S  9-12 .50CR
In this course we will learn how to control computer technology using Photoshop, Illustrator, and ProCreate to produce and artistic image. We will also learn computer illustration and drawing techniques using IPads and styluses. Topics also covered will focus on digital camera use, graphic design, visual literacy, advertising, and the elements and principles of art in composition. Art historical movements and artists will also be studied as they relate to student projects.
Get ready for college! Get ready for life!
The Business and Finance Technology Department offers a variety of courses that prepare students for life after high school. Whether you plan on immediately entering the workforce or majoring in Business Administration in college (according to The Princeton Review Business Administration is the most popular college major!), we surely have a course that will provide you with business and technology skills that will last a lifetime!

Departmental extracurricular opportunities include:
  Future Business Leaders of America Club (F.B.L.A.)

School Based Enterprises
  ● The School Store is located in the cafeteria at Manchester High School. Students that have completed Marketing I with at least a B average, where student leaders manage all aspects of retail store operations including product development, marketing research, sales, promotion, money management, budget preparation, and accounting.  
  ● The Northeast Family Federal Credit Union MHS branch is located in the cafeteria of Manchester High School. Student interns are trained to work as tellers in this fully functional branch of the credit union.

Consider taking one of our exciting business electives!

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<th>Business Management</th>
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Business and Finance Courses

**BU8027 College Accounting—Multi-Level (MCC—ACC113: Principles of Accounting)**  

Prerequisite: Algebra 1—Must pass with a grade of C or higher  
College Accounting is a full year course that is articulated with Manchester Community College and adheres to their instructional guidelines. Students will be introduced to the basic elements of the accounting equation as well as financial statements, and ratio analysis that are used by businesses to make important resource allocation decisions. **Students who elect to enroll in the College Career Pathways Program who take this class in their sophomore, junior or senior year may be eligible to receive 4 MCC credits which may be transferable to other institutions of higher education.**
BU8536 Personal Finance—Multi-Level  
9-12 .50 CR
Money doesn’t grow on trees, and everyone should learn to be financially responsible. Topics covered in this class are useful, realistic, and will help students gain control over the financial impact of the choices they make. Students will learn to create and use a budget, borrow and invest wisely, make intelligent decisions about insurance, understand taxes, and plan for the costs of large purchases and investments such as college or other types of postsecondary training. Students will participate in the popular stock market simulation that encourages students to compete against other students throughout Connecticut for the potential of winning prizes and college scholarships. Students who successfully complete this class will fulfill the requirement for financial literacy that is necessary for graduation.

BU8546 College Financial Literacy—Multi-Level (MCC—BF111: Financial Literacy)  
10-12 .50 CR
Prerequisite: Personal Finance Must pass with a grade of C or higher
This course builds upon basic concepts taught in Personal Finance and will teach students essential decision-making skills they must apply and use to become wise and knowledgeable consumers, savers, investors, users of credit, money managers, citizens, and members of a global workforce and society. This college level course is designed to incorporate concepts and skills from mathematics, language arts, social science, applied technology, character education, and other interdisciplinary areas. In addition, students will be familiarized with the basics of the accounting equation and financial statement analysis. Students enrolled in the College Career Pathways Program who take this class in their sophomore, junior, or senior year may be eligible to receive 3 MCC credits which may be transferable to other institutions in higher education.

BU8004 Credit Union Internship—Multi-Level  
12 1.0 CR
Prerequisite: Marketing 1, College Accounting, and/or College Financial Literacy or permission of instructor
Students who meet the prerequisite requirements may apply for this internship. Selected students will work in the Northeast Family Federal Credit Union branch located at Manchester High School. Upon completion of a background check and rigorous employee training, selected students will work with credit union staff members in our fully functional credit union located in the cafeteria of the high school. Student employees will assist customers in everyday transactions including deposits, withdrawals, check cashing, balance inquiries, and opening/closing accounts. The credit union will train interns to perform job duties and may offer after-school and/or summer paid employment opportunities to selected students.

BU8105 Entrepreneurship—Multi-Level  
10-12 .50 CR
This class is for any student thinking about starting his or her own business. In this course students will learn the basics of starting a business with a focus on a wide range of factors that influence the flow of goods and services from producer to consumers. Topics include purchasing, advertising, display, customer service, sales, management and writing a business plan. Students will collaborate with various local business owners in the local community with a possible focus on the restaurant and hospitality industry. Students will write a business plan and pitch their ideas to business/community members.

BU8305 International Business—Multi-Level  
9-12 .50 CR
When you think about where you want to be in life, are you thinking about the whole world? If so, international business may be the course for you. This class will give you an increased awareness of the economic, political, geographic and sociocultural factors that impact doing business in our global society. Students will explore the basics of international business, including international careers, laws and ethics, currency exchanges, communication challenges, and risks involved in global business activities. An emphasis of this course will include exploration and appreciation of cultural differences that impact international trade relationships.

BU8715 Introduction to Business—Multi-Level  
9-12 .50 CR
Future business leaders, this class is for you! The course is intended for students interested in running a business, going to college to earn a post-secondary degree in business administration, or who simply have a desire to explore career opportunities in the business world. In this introductory course, students will learn business principles using real-world examples—learning what it takes to plan and launch a product or service in today's fast-paced business environment. In this course students will apply what they learn about economics, marketing and entrepreneurship.

BU8527 Sports & Entertainment Management and Leadership—Multi-Level  
9-12 .50 CR
Students will be introduced to basic management and marketing principals with a focus on the sports and entertainment industry. Topics will include management theories, social and ethical considerations of business transactions, how to start a business, and the importance of hiring, inspiring and retaining employees. Students will be introduced to theories relating to human motivation and the fundamentals of organizational behavior and apply this knowledge to a realistic marketing campaign involving a local sporting or entertainment event.
**BU8116 Marketing 1—Multi-Level**

9-12 .50 CR

This course should be taken by anyone who desires to pursue a career in business, retail, advertising, sales, display or fashion merchandising. Students will learn about marketing careers, ethics, and fundamental theories in marketing, including product development, pricing, promotion, marketing research, and sales techniques, all with the goal of becoming familiar with what it takes to make a business successful. Fundamental business and leadership skills will be developed through classroom instruction, computer simulations and school store experiences.

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**BU8226 Microsoft Office Applications—Multi-Level**

9-12 .50 CR

**BU8227 School Store Internship—Multi-Level**

1S 10-12 .50 CR

Prerequisite: Marketing 1.

Marketing interns are student leaders who run the school store at MHS. Major responsibilities of marketing interns include the preparation of financial statements, development of new and improved products and services, conducting marketing research, designing promotional campaigns, and training new interns. Students will be primarily assessed as if they were working in an actual retail setting. Throughout this course experience, students prepare themselves for the workforce by preparing for the National Retail Foundation Customer Service and Sales Certificate Exam, a nationally recognized industry credential. This course may be repeated for credit.

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**Computer Information Systems Course Offerings**

**BU8185 Computer Programming I—Multi-Level.**

9-12 .50 CR

This course is designed to teach the fundamentals of object-oriented programming using current object-oriented programming languages. Emphasis is placed on designing and creating well-structured programs using the programming process. Students will learn vocabulary, code syntax, and programming logic as they design and code programs.

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**BU8326 Microsoft Office Applications—Multi-Level**

9-12 .50 CR

**(MCC—CSA 105: Introduction to Software Applications)**

9-12 .50 CR

This course is designed for students to develop practical Microsoft Office application skills necessary for personal productivity at home, on the job, or in the classroom. Topics will include an overview of the Windows operating system, including file management skills, in addition to Microsoft Word, Excel, Access, and PowerPoint. This course is intended to prepare students to successfully complete the Microsoft Office Specialist exam in Word, Excel or PowerPoint. Passing this exam demonstrates proficiency in Microsoft Office Applications to prospective employers. Students enrolled in the College Career Pathways Program who take this class in their sophomore, junior, or senior year may be eligible to receive 3 MCC credits which may be transferable to other institutions in higher education.

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**BU8706 Web Design —Multi-Level (MCC—CST B150: Web Design and Development)**

10-12 .50 CR

This course is designed to deliver the fundamentals for designing and building web pages and prepare students to create visually appealing web pages designed to communicate an organization’s goals to an identified target audience. This college-level class provides instruction and application of the principles of Web Design using HTML5, CSS (Cascading Style Sheets), JavaScript/JQuery/WordPress, and Adobe PhotoShop. Students enrolled in the College Career Pathways Program who take this class in their sophomore, junior, or senior year may be eligible to receive 3 MCC credits which may be transferable to other institutions in higher education.
The English Language Arts Program is designed to prepare students for the demands of today as well as the world of tomorrow. Curriculum is based on the Common Core State Standards in which instruction prepares students to listen, view and read critically, and to speak and write effectively. Students have ample means and opportunity to use technology as a tool for learning and communicating ideas in preparation for 21st century careers.

Students are exposed to myriad texts including the classics, young adult literature, non-fiction pieces, plays, poetry, and films. Students evaluate universal themes, explore human nature, and examine concepts suggested by the texts in a variety of assessments. Reading and writing instruction involves processes designed to encourage depth of thinking, clear expression of ideas, and mastery of the conventions of the English language. College and career readiness are emphasized in all courses.

In this department courses primarily emphasize these capacities from our Vision of a Graduate:

**Critical Thinking:** Analyze and evaluate ideas, claims, evidence and/or representations to construct meaning.

**Communication:** Express ideas and share information to effectively engage an audience for a given purpose and task.

**Collaboration:** Work together to share and evaluate knowledge and ideas by asking questions, listening actively, and respecting and considering the opinions of others in order to achieve a common goal.

**Self-Direction and Process Monitoring:** Develop a plan of action including a timeline, identify skills and resources, and monitor the progress through feedback and reflection.

### Honors Requirements

Students in Grade 8 will be evaluated for Honors English by the following criteria: results of standardized tests, student achievement, and teacher recommendation. The sequence for the four-year honors track is suggested as follows:

- Freshman Honors Language Arts
- Sophomore Honors English OR Honors Humanities (English and Social Studies credit combined)
- Junior Honors English (UCONN Seminar in Writing through Literature), OR UCONN American Studies (English and Social Studies/American History credit combined) OR Advanced Placement (AP) Literature and Composition.
- Senior Honors English (UCONN Seminar in Academic Writing) OR Advanced Placement (AP) Language and Composition

### Alternative Courses

Alternative courses to the regular English class offerings are as follows:

- In the junior year, students may elect American Studies (see above)
- In the senior year, students who are teacher recommended, may elect Creative Writing
- 10th—12th grade students may take Creative Writing as an elective course
Summer Reading
All students are expected to read over the summer and will receive instructions prior to the end of the school year. Additionally, the summer reading expectations for each grade will be available online.

Depending on the course, students will either provide evidence of their reading during the summer or upon return to school. Once again, please note that instructions will be available online.

GRADE 9

EN2001 Language Arts—Honors 9 1.0 CR
EN3001 Language Arts—College Prep 9 1.0 CR
The Freshman English Language Arts course focuses on foundational skills, emphasizing close reading and academic writing. Students concentrate on the analysis of both fiction and nonfiction texts in order to evaluate and apply evidence to a variety of writing styles. Additionally, ninth grade language arts classes target vocabulary, speaking and listening, collaboration, and independent exploration. Technology is infused and utilized in a variety of assignments and assessments ensuring that students have the means and opportunity to use technology as a tool for learning, communicating ideas, and advancing in the 21st century.

ND9103 Freshman Seminar  GR9 .50 CR
All grade 9 students take this course, which is based on models of college freshman seminars and aspects of positive youth development. Designed to make the transition into high school more manageable, the course helps students set goals, build community, and develop self awareness. It centers around five questions: Who am I in this class? Who am I at MHS? Who am I outside these walls (family, friends, community, etc)? Who am I in society (age, gender, race, etc)? And who will I be five or ten years from now?

GRADE 10

EN2002 Sophomore English—Honors (Designed to introduce pre-AP/UCNN ECE skills) 10 1.0 CR
EN3002 Sophomore English—College Prep 10 1.0 CR
Sophomore English is a World Literature course that builds upon the skills introduced in grade 9. The expectation is for students to improve upon their ability to dissect complex texts by participating in close readings and academic writing. The major resources are literary classics, young adult literature, and a comprehensive anthology. Vocabulary, speaking and listening, and conventions of the English Language are emphasized and strengthened. Technology is infused and utilized in a variety of assignments and assessments ensuring that students have the means and opportunity to use technology as a tool for learning, communicating ideas, and advancing in the 21st century.

EN2022 Humanities—Honors 10 1.0 CR (1.0 English/1.0 Soc. Studies CR)
Corequisite SS2022, Block code SS20B2
This course examines modern World History through an interdisciplinary model. The course will be team taught by members of the Social Studies and English faculty. Students will focus on skill development and common core tasks as they examine the origins of the modern world through the past. The course will focus on cultural studies as well as the history and literature of a time period. Students will examine art, architecture, and music to fulfill the interdisciplinary mission of the course.

GRADE 11

EN1003 Advanced Placement—Literature and Composition 11 1.0 CR
This course engages students in careful reading and critical analysis of American and World classics/literature. Students develop skills in close reading of complex texts, analysis of rhetorical strategies and deeper understanding of the literary elements. Technology is infused and utilized in a variety of assessments ensuring better preparation for the 21st century. Students must sit for the AP exam in May, potentially earning college credit. Fee waivers are available to eligible students.
EN2013 UCONN Honors American Studies—Early College Experience
11  1.0 CR (1.0 English/1.0 Soc. Studies CR)
Corequisite SS2013, Block code SS20B3
American studies is a work intensive, interdisciplinary, team taught course. Students are expected to independently read college level fiction and nonfiction texts and write sophisticated thesis driven essays that synthesize their understanding of American history, literature, and culture. Students meet daily which fulfills the requirements for Junior English (1.00 credit) and U.S. History (1.00 credit). The course offers a variety of learning experiences, including a number of field trips designed to enhance the curriculum. Technology is infused and utilized in a variety of assessments ensuring students are kept abreast of technological opportunities which better prepares them in the 21st century. Students who earn a “C” or better and who register for this course per the University of Connecticut’s guidelines are eligible to receive 3 UCONN credits, which may also be transferable to other institutions. Students must be recommended for this course by both their English teacher and their History teacher.

EN2003 American Literatures—Honors
11  1.0 CR
Students discuss, analyze, and write about conceptual topics sparked by American literature and nonfiction texts, synthesizing ideas from a variety of sources. There will be an emphasis on academic writing through close reading. Assignments emphasize an exploration of American society’s values and their implications. Revision, instruction in grammar, mechanics, and style are key components. Technology is infused and utilized in a variety of assessments ensuring students are prepared for 21st century study and work.

American Literature—College Prep
11  1.0 CR (0.5 CR per semester)
The course of study for juniors emphasizes the analytical study of American literature. The primary focus is on close reading and academic writing in order to convey one’s depth of knowledge in a sophisticated manner. Several thematically designed semester courses will be offered, each of which encourages in-depth exploration of literature through a particular lens. Note: Students will select two courses, one for each semester (see below). Research skills, vocabulary, speaking and listening, and the conventions of English language are essential components of junior English courses. Technology is infused and utilized in a variety of assessments ensuring better preparation for the 21st century. Thematic courses run based on student interest and include:

- EN3503—American Literature—Drama - Focus on the development of American theater and American voice
- EN3513—American Literature—Dream - Focus on definition, evolution, and barriers to American Dream
- EN3523—American Literature—Whistleblower - Focus on issues/impact around whistleblowing in American culture
- EN3533—American Literature—Justice - Focus on issues faced by past and presently oppressed Americans
- EN3543—American Literature—Health (Priority enrollment for MCA students) - Medical/Mental health in literature
- EN3553—American Literature—LGBT Experience - Exploration of themes related to LGBT experience in America
- EN3563—American Literature—Gender - Focus on gender norms, stereotypes, perceptions, and issues in America
- EN3573—American Literature—Psychology - Focus on portrayal of psychological issues/illnesses in America
- EN3583—American Literature—Conflict - Focus on how war/conflict affects American voice and identity

EN8033 Abnormal Psychology in American Literature—Multi-level
11  1.0 CR
EPSA juniors will have priority placement in this college prep English course that examines American literature through a psychological lens. Students will explore the roles of development, mental illness, stress, and addiction as they pertain to American authors, classic literary characters, and the collective American identity. This course will be team taught by members of the Social Studies and Language Arts faculty and will emphasize close, thoughtful reading, in-depth research, and careful expression in spoken and written communication.

GRADE 12

EN1004 Advanced Placement English—Language and Composition
12  1.0 CR
This course engages students in becoming skilled readers of prose written in a variety of rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Technology is infused and utilized in a variety of assessments ensuring students are prepared for further study and work in the 21st century. Students must sit for the AP exam in May, potentially earning college credit. Fee waivers are available to eligible students. (Note: This is a separate and distinct course and exam from AP English—Literature and Composition).
EN2004 UCONN Honors English—Seminar in Academic Writing and Multimodal Composition (UCONN ENGL1007)  12  1.0 CR
Students are introduced to different modes and approaches to composition and become aware of, and respond to, a variety of rhetorical situations. Students will compose through multiple forms of literacy, including rhetorical, digital, and information literacies necessary for twenty-first-century contexts. Students develop creatively intellectual inquiries through sustained engagement with texts, ideas, and problems. Revision, instruction in grammar, mechanics, and style are key components. Technology is infused and utilized in a variety of assignments. Students who earn a “C” or better and register for this course per the University of Connecticut’s guidelines are eligible to receive 4 UCONN credits, which may be transferable to other institutions. SAT Critical Reading Score of 450 or higher, or teacher recommendation.

EN3004 Senior English—College Prep  12  1.0 CR
The Senior English course is designed to ensure college and career readiness. Its focus is on rigorous college preparatory writing, as well as on developing competency in reading, understanding, and responding to college level texts. Required readings will be drawn from nonfiction, fiction and various multimedia sources. Students will continue to explore reading and writing as processes, with the goals of improving the effectiveness of oral and written communication as well as developing the ability to analyze texts and synthesize information. Technology is used in a variety of assessments, ensuring students are well-prepared for 21st century study and work.

EN9006 Creative Writing—Unleveled  10-12  1.0 CR
This course is designed for students who are serious about expressing their creativity in a variety of written modes. Students are exposed to poetry, script writing, short stories, and other genres. Through work-shopping and revision processes, the writer will develop an ear for dialogue, rhythm, fluency, diction, and tone. Publishing opportunities will be pursued through various venues. Technology is infused throughout the course, ensuring 21st century college and career preparedness. This course may be taken for English graduation credit in Grade 12 only with teacher recommendation.

EN8046 Contemporary Journalism —Multi-Level  10-12  1.0 CR
Students in Contemporary Journalism will be enrolled in a full year elective in addition to a regular English class. Students will be a part of the writing staff for the school’s digital and print newspaper, The Nest, and are free to write about a wide array of personal, school, and community interest topics. The course also invites talented photographers who are interested in photojournalism to enroll. This course may not be taken for English graduation credit and is not approved by the NCAA as a core English course.

EN9016 MHS Writing Center —Unleveled  10-12  1.0 CR
The MHS Writing Center practicum course entails an in-depth study of writing in all disciplines (English, science, math, social studies, technology, etc.) as well as the pedagogy of supporting student writers as peer tutors. Members of the class will be expected to staff the Writing Center during a free period in addition to attending this course. Students will also provide push-in writing support as requested by staff. Areas of focus in this class include the writing process; building grammar, vocabulary, and writing skills; supporting writing revision and skill development; offering empathetic and targeted feedback to writers; and engaging in reflection and research on the writing center. This course may not be taken for English graduation credit and is not approved by the NCAA as a core English course.
ENGLISH LANGUAGE DEVELOPMENT

ELs are accurately placed in ESOL (English to Students of Other Languages) classes and provided academic supports based upon their level of English language proficiency as measured by the LAS Links test. This test assesses the academic and social language skills of ELs across each language domain—listening, speaking, reading, and writing. The main goal of the ESOL program is to provide equal educational opportunity for students of other languages so that they can acquire English proficiency and academic skills to successfully transition into the mainstream classrooms. The program meets the needs of these students as outlined in Title III of the Every Student Success Act (ESSA) under CSDE guidelines.

ES9125 ELD Beginning  .50 CR
ES9225 ELD Beginning  .50 CR

English Language Development

A beginning and early intermediate level course for the English Language Learners. Flexible grouping and differentiated instruction serve the needs of the different levels of the students. Focus is on reading, writing, listening, speaking, grammar and word work. Support also provided for grade level assessments and course work.

ES9135 ELD Intermediate  .50 CR
ES9235 ELD Intermediate  .50 CR

English Language Development

An intermediate level course for the English Language Learner. Flexible grouping and differentiated instruction serve the needs of the different levels of the students. Focus is on reading, writing, listening, speaking, grammar and word work. Support also provided for grade level assessments and course work, as well as applications for post-high school education and career paths.

ES9005 ESL Academic Reading & Writing  1 CR

An ESL course modeled after the highest level ESL course work at Manchester Community College. Students create portfolios with academic writing based on Academic reading essays of various genres. This course is for Juniors and Seniors who have scored at the Proficient level on the LAS LINKS Proficiency Test. The focus is on post-secondary level English reading and writing as well as getting support in the application process for post-secondary study.
Experiential Learning

We offer a variety of experiential learning opportunities that are personalized, innovative, independent and connected to students’ personal interests, passions and aspirations. This learning may happen both inside and outside traditional classroom settings and beyond the conventional school day. Many of these programs have been created in collaboration with local businesses, colleges, universities and other community organizations.

Experiential learning programs are facilitated by a staff member who assists in the design of an individualized program of study that meets the needs of each student. Credit(s) will be awarded based on the successful demonstration of completed hours, assessments or other requirements. New learning/evidence of growth may include the presentation of a student portfolio, attaining an industry-recognized credential/college credit or completing a culminating capstone project.

Students will participate in regular conferences with their course instructor(s)/mentor(s) and build their existing school-wide profiles and professional resumes by participating in internships, job shadows, workshops, projects or a combination of these activities relating to personal career goals and/or interests. A variety of in person and virtual/simulated experiential learning opportunities are available for students to consider including:

**ND9725 Career Exploratory Internships and Pre-Apprenticeships:**

Students will prepare for and spend time shadowing or training with a professional at a place of employment or school-based/virtual/simulated work environment that matches a career area of interest. Credit hours generally consist of a variety of workshops that will prepare students for the internship experience prior to placement, including resume building, interview preparation, workplace/safety rights, etc. All students in this program will have the opportunity to earn an OSHA 10 workplace safety certificate, a highly valued industry recognized credential. Through the development of authentic experiences that enable engagement in career exploration and immersion, students will have the opportunity to:

- Investigate career areas or occupations to help discover whether they are a good match
- Gain real-world work experience and skills
- Attain valuable experiences that will be useful to include on college applications and resumes
- Understand how their futures can be impacted by what they accomplish in high school
- Research what they need to know and be able to do to succeed in a particular field
- Learn what they can expect with regard to wages and employment potential
- Make contacts in fields of their interest
- Develop career competencies and soft skills

**ND 9715 Community Service External Credit Opportunities**

Students will prepare for and spend time volunteering or completing community service hours at a local organization that interests them and/or matches their unique passions and interests. These experiences aim to provide students with opportunities to:

- Make a positive impact by volunteering and giving back to the local community
- Collaborate with the public and gain skills and experience that stand out on college and scholarship applications and resumes
- Gain real-world work experience and skills
- Develop personal and career competencies and soft skills
- Examples: Community Service Virtual Choice Board Options

**ND9705 Independent Study Opportunities or Passion Projects:** Students may collaborate with a staff member at Manchester Public Schools or an external community-based mentor to design an educational program of study that aligns to personal interests and areas of growth. For example, students may:

- earn an industry recognized credential or certificate (OSHA 10, customer service, coding, ParaPro or Future Educator)
- work on a project of their choice based on personal interests or goals (building a computer, organizing a social justice campaign, taking an online course, etc.)
- write a play, book or movie script
- participate in a local art show
- design a proposal to improve the condition of their local community or school
- enroll in a variety of online or college course options that are available in a myriad of subject areas. These options might include classes taken at Manchester Community College, Goodwin University, or an online/blended learning platform such as KHAN Academy, a Microsoft Office Specialist course or Google IT Support Specialist.
- Examples: Passion Project/Independent Study Virtual Choice Board Options
FAMILY & CONSUMER SCIENCES

Empowering students with life skills to be successful in the future.

Family and Consumer Sciences Touches Your Future Through the:

- Application of academic skills, critical thinking and communication skills.
- Exploration of career options.
- Development of consumer and career skills involving the creation of fashions.
- Prepares students in areas related to human development and family studies.

In this department courses primarily emphasize these capacities from our Vision of a Graduate:

**Collaboration:** Work together to share and evaluate knowledge and ideas by asking questions, listening actively, and respecting and considering the opinions of others in order to achieve a common goal.

**Self Direction/Task Management:** Develop strategies and plans to manage time, accomplish goals, and monitor progress through feedback and reflection.

**Creativity:** Explore idea(s) through a meaningful, intentional process that inspires the development of a product, performance, or solution.

Classroom And Extracurricular Experiences Include:

**Clubs:**
- Future Educator Club
- Sewing Club

**Community Service Opportunities:**
- Manchester High School Best Buds
- Harvest Pack
- Empty Bowls Project
- Manchester Community Garden

**School and Business Partnerships:**
- Job Shadow at various Manchester elementary schools, our middle schools and elder care facilities
- Mock Interviews
- Local food & beverage professional demonstrations
- MACC Charities
- Bistro on Main
- Ethan Allen Design Challenge

**School Based Enterprises:**
- Silk City Cafe
- Seasonal food sales by Bake Shop I and II classes

The Family & Consumer Sciences Department offers the following courses:
### Fashion and Design
- **FC8135 Fashion and Design I—Multi-Level**
  - **1S/2S 9-12 .50 CR**
  - Prerequisite: None
  - **Description:** Students will gain a basic knowledge of clothing and apparel design through the construction of multiple projects. Opportunities to learn about fibers and fabrics, care and repair of clothing, and use and care of equipment. Careers in clothing and textiles will be explored.

- **FC8245 Fashion and Design II—Multi-Level**
  - **1S/2S 9-12 .50 CR**
  - Prerequisite: Fashion and Design I
  - **Description:** The emphasis of this course is on increasing the student's knowledge of clothing construction and textiles. Students will follow a prescribed sequence of projects and learning experiences. Careers in the fashion industry will be explored.

- **FC8656 Fashion and Design III—Multi-Level**
  - **1S/2S 10-12 .50 CR**
  - Prerequisite: Fashion and Design II
  - **Description:** This course will allow students to explore more extensively the field of textiles and design. The sequence of projects and learning experiences will be tailored to meet student interests and career needs. This course may be repeated for credit.

- **FC8717 Interior Design and Housing—Multi-Level**
  - **1S/2S 9-12 .50 CR**
  - **Description:** Interior Design is an ever-changing field. Students will learn the elements and principles used in designing personal living environments. This course will cover topics such as housing styles, furnishings, and room arrangement. Take this opportunity to explore career possibilities in this occupation.

### Hospitality
- **FC8315 Introduction to Culinary Arts—Multi-Level**
  - **1S/2S 9-12 .50 CR**
  - **Description:** The main goals of this course are planning and preparation of meals. This course focuses on creative cooking in a collaborative setting. Students will practice a variety of methods of preparation through multiple lab experiences.

- **FC8516 International Foods—Multi-Level**
  - **1S/2S 10-12 .50 CR**
  - **Description:** This course explores a variety of international cooking techniques and practices, emphasizing culture, customs, and nutrition within each unit. Some of the units include Mexican, Asian, Italian, Caribbean and Haitian cuisine.

- **FC8136 Bake Shop I—Multi-Level**
  - **1S/2S 10-12 .50 CR**
  - **Description:** The Bake Shop gives students the opportunity to learn about baking. Bake Shop units included are quick breads, cakes, pies and cookies. The course is especially recommended for those students who wish to explore employment in a food related occupation.

- **FC8247 Bake Shop II—Multi-Level**
  - **1S/2S 10-12 .50 CR**
  - **Description:** This course allows students to develop advanced baking skills such as cake decorating, yeast breads, and pastries. Students prepare baked goods for Silk City Cafe. A serious interest in baking is necessary.

- **FC8017 Advanced Culinary Arts—Multi-Level**
  - **10-12 1.0 CR**
  - **Prerequisite:** Algebra 1 and (1) prior foods course
This course introduces students to techniques and procedures required to prepare foods for Silk City Café with an emphasis on developing sanitary working habits. Some units include soups, salads, sauces, stocks, poultry, beef, vegetables, and grains.

**FC8126 Nutrition for Fitness—Multi-Level**  
1S/2S  10-12  .50CR  
This course will explore the six major categories of nutrients and their roles in the performance of a healthy teenager. The science of nutrition will be applied to the preparation of the foods and the development of healthy lifestyles and eating habits.

**FC9107  Silk City Intern—Unleveled**  
1S/2S  11-12  .50 CR  
Prerequisite: 1 foods class  
Silk City interns are student leaders who participate in managing Silk City Café. Major responsibilities of the interns include food preparation, marketing, and sales. They manage the day-to-day operations including our POS system, inventory management, and development of new products. Students will develop career building skills by participating in community service and managing customer relations. This course may not be repeated without department chair permission.

**EDUCATION PUBLIC SERVICE ACADEMY**

**FC9516  Introduction to Education and Public Services Academy—Unleveled**  
Q1/Q2 10-12  .25 CR  
This course is for students entering the Education/Public Services Academy. The focus of instruction will include student centered activities that examine careers in Education and Public Service. Students will be exposed to guest speakers from various occupations and engage in panel discussions with many professionals. Exploration will include issues, policies and trends in education and public service as well as topics of diversity and equity, law and ethics.

**HUMAN DEVELOPMENT**

**FC8175  World of Children—Multi-Level**  
1S  9-12  .50 CR  
Do you enjoy learning about children? Do you want to learn more about them? This course provides an exploratory introduction to the study of parenting and families as well as pregnancy and birth. Infant simulator will be used for an authentic experience.

**FC8127  Introduction to Early Childhood Education—Multi-Level**  
1S  10-12  .50 CR  
Does your future include children? Do you see yourself as a preschool or elementary school teacher, social worker, or in another child care related occupation?

**FC2007  UConn Human Development & Family Studies (UCONN HDFS 1070 ECE) - Honors**  
12  1.0 CR  
3 UCONN Credits Possible  
Prerequisite: Planned Program of study to include Algebra I & II, Honors English, History and Science (Biology, Chemistry, Anatomy & Physiology or Physics)  
This course is designed as an introduction to the field of human development, social services and family studies. The course will provide students with an understanding of individual and family development over the lifespan. Job shadows will be key components of this course. Students must provide their own transportation. This course is the equivalent of UCONN HDFS 1070.

**FC2137  Introduction to Education: Schooling and Human Services - Honors**  
11-12  .50 CR  
This course introduces students to the process of education and development as it occurs in schools and social service agencies. It offers a foundation in reflective practice and in the knowledge, skills, and dispositions that are central to these professions. It also focuses on how schools and human service agencies can work together to address issues of concern in the community. The course includes a community-service learning component. This course is equivalent to University of Hartford EDF 120.

3 University of Hartford credits possible
Mathematics

 Goals and Vision of the Graduate: 
It is our goal in the math department to educate students so that they are able to:

- Understand and apply mathematical concepts
- Develop logical thinking and organizational skills
- Apply strategies to investigate, evaluate, and solve a variety of problems
- Formulate definitions and express generalizations discovered through inquiry
- Use and value the connections between mathematics and other disciplines
- Build mathematical literacy to become educated consumers and prepare for future math studies
- Develop a foundation for postgraduate study in related fields
- Use appropriate tools of inquiry including graphing calculators and computer programs

In this department courses primarily emphasize these capacities from our Vision of a Graduate:

Problem Solving: Define problems and work through processes to determine solutions, draw conclusions, evaluate the reasonableness of solutions, and/or have a better understanding of problems.

Critical Thinking: Analyze and evaluate ideas, claims, and/or representations to construct meaning

MHS math students have demonstrated excellence by achieving recognition and/or awards for:

- SAT Performance
- AP Calculus Performance
- National Merit Scholar
- AMC Examination Score
- Math Team Competition
- UCONN Mathematics and Statistics credit

Math department curriculum aligns with Common Core State Standards and Mathematical Practices:

- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make sense of structure
- Look for and express regularity in repeated reasoning
Mathematics Courses

Successful completion of Algebra I and Geometry in middle school may be noted on the student’s official MHS transcript. All students must, however, meet the requirement of a minimum of three courses in mathematics at MHS.

MA2001 Algebra 1—Honors 9 1.0 CR
Students who are recommended for this course must demonstrate high academic achievement, mental maturity, superior abstract reasoning ability and independent motivation. The Common Core Algebra 1 curriculum connects students’ prior knowledge of numerical operations, algebraic reasoning and working with data to the investigation and application of linear and nonlinear functions. The curriculum focuses on strengthening students’ ability to model and interpret situations and develop mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MA3001 Algebra 1—College Prep 9 1.0 CR
The Common Core Algebra 1 curriculum connects students’ prior knowledge of numerical operations, algebraic reasoning and working with data to the investigation and application of linear and nonlinear functions. The curriculum focuses on strengthening students’ ability to model and interpret situations and develop mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MA4032 Algebra 1—Post Secondary Prep 9 1.0 CR
This course is designed for grade 9 students who have had difficulty mastering middle school mathematics as they now begin to study high school curriculum. The Common Core Algebra 1 curriculum connects students’ prior knowledge of numerical operations, algebraic reasoning and working with data to the investigation and application of linear and nonlinear functions. The curriculum focuses on strengthening students’ ability to model and interpret situations and develop mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MA2026 Algebra 2—Honors 9-11 1.0 CR
Sequential: Algebra 1 Honors
Students who are recommended for this course must demonstrate high academic achievement, mental maturity, superior abstract reasoning ability and independent motivation. The Common Core Algebra 2 curriculum connects students’ prior knowledge of function analysis, geometric reasoning and working with data to the investigation and application of more complex algebraic and trigonometric functions. The curriculum focuses on strengthening students’ ability to model and interpret complex situations and develop and defend mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MA3026 Algebra 2—College Prep 10-12 1.0 CR
Sequential: Algebra 1 College Prep.
The Common Core Algebra 2 curriculum connects students’ prior knowledge of function analysis, geometric reasoning and working with data to the investigation and application of more complex algebraic and trigonometric functions. The curriculum focuses on strengthening students’ ability to model and interpret complex situations and develop and defend mathematical solutions to problems as they apply the Common Core Mathematical Practices.
MA4026 Algebra 2—Post Secondary Prep
Prerequisite: Algebra 1
11-12 1.0 CR
The Common Core Algebra 2 curriculum connects students’ prior knowledge of function analysis, geometric reasoning and working with data to the investigation and application of more complex algebraic and trigonometric functions. The curriculum focuses on strengthening students’ ability to model and interpret complex situations and develop and defend mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MG2115 Geometry—Honors
Sequential: Algebra 1 Honors
2S 9-11 0.5 CR
Students who are recommended for this course must demonstrate high academic achievement, mental maturity, superior abstract reasoning ability and independent motivation. The Common Core Geometry curriculum connects students’ prior knowledge of algebraic reasoning, function analysis and working with data to the investigation and application of geometric relationships and formulas. The curriculum focuses on the study of coordinate geometry, congruence and similarity relationships, and connections from algebra and functions. It also strengthens students’ ability to model and interpret situations, and use deductive reasoning to develop mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MG3115 Geometry—College Prep
Sequential: Algebra 1 CP
2S 9-11 0.5 CR
The Common Core Geometry curriculum connects students’ prior knowledge of algebraic reasoning, function analysis and working with data to the investigation and application of geometric relationships and formulas. The curriculum focuses on the study of coordinate geometry, congruence and similarity relationships, and connections from algebra and functions. It also strengthens students’ ability to model and interpret situations, and use deductive reasoning to develop mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MG4115 Geometry—Post Secondary Prep
Sequential: Algebra 1
2S 10 0.5 CR
The Common Core Geometry curriculum connects students’ prior knowledge of algebraic reasoning, function analysis and working with data to the investigation and application of geometric relationships and formulas. The curriculum focuses on the study of coordinate geometry, congruence and similarity relationships, and connections from algebra and functions. It also strengthens students’ ability to model and interpret situations, and use deductive reasoning to develop mathematical solutions to problems as they apply the Common Core Mathematical Practices.

MA4137 Problem Solving Strategies in Math—Post Secondary Prep
Prerequisite: Geometry
1S/2S 11-12 .50 CR
This course is designed to develop and improve the use of problem solving strategies for school and the world of work. Students will work cooperatively in groups and develop communication and problem solving skills as they apply the Common Core Mathematical Practices and the SAT administration. They will learn to select appropriate strategies for a wide variety of math problems and improve test-taking skills including those needed for SATs.

MC2007 Pre-Calculus—Honors
Prerequisite: Geometry
Sequential: Algebra 2 Honors
10 -12 1.0 CR
This course presents important concepts and methods from Algebra, Analytic Geometry, and Trigonometry. It illustrates how they may be used to model theoretical and practical problems numerically, algebraically, and graphically. Emphasis is placed on Trigonometry and function theory to provide the foundation for the study of Calculus and college level mathematics.

MC3007 Pre-Calculus—College Prep
Prerequisite: Geometry
Sequential: Algebra 2 CP
10 - 12 1.0 CR
This course provides a solid preparation for students who may wish to continue the study of mathematics. The major emphasis is the integration of Algebra and Analytic Geometry with other topics in mathematics by an approach that stresses multiple representations of functions. Special attention is given to the study of Trigonometry.
MM2117 UCONN Discrete Mathematics—Honors
Sequential: Geometry and Algebra 2 College Prep
1S/2S 12 .50 CR
Under the University of Connecticut Cooperative Plan, three college credits may be earned for satisfactory completion of this course. It is equivalent to Math 1030Q at UCONN. This is a practical mathematics course for the college bound student. It includes a study of problem solving, simultaneous linear equations, counting and probability, graph theory, deductive reasoning, the axiomatic method and finite geometries and number systems. There are applications to business and economics.

MM2214 Elementary Concepts of Statistics—Honors
Sequential: Pre-Calculus -College Prep
1S/2S 12 .50 CR
This course is a study of standard and nonparametric approaches to statistical analysis, exploratory data analysis, elementary probability, sampling distributions, estimation and hypothesis testing, one-and two-sample procedures, regression and correlation.

MM1007 A.P. Statistics
Prerequisite: Pre-Calculus
12 1.0 CR
The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

MC1004 A.P. Calculus AB—A.P. Level
Sequential: PreCalculus Honors
11-12 1.0 CR
This course includes limits, derivatives, anti-derivatives, indefinite and definite integrals of algebraic, trigonometric, logarithmic and exponential functions. Emphasis is placed on modeling through multiple representations of functions (numerically, algebraically, and graphically). Applications in the science, business and engineering fields are included. Students are required to take the AP Exam and pay the fee. Fee waivers are available for eligible students.

MC1014 A.P. Calculus BC—A.P. Level
Sequential: AP Calculus AB
12 1.0 CR
This course is an extension of the Calculus AB curriculum with enhancement of prior topics included. Topics include derivatives and integrals of parametric and polar functions with applications, advanced techniques of anti-differentiation, improper intervals, and exploration and analysis of infinite sequences and series. Students are required to take the AP Exam and pay the fee. Fee waivers are available for eligible students.

MC2077 Honors Calculus—Honors Level
Sequential: Pre-Calculus – College Prep
11-12 1.0 CR
This course is designed to provide highly motivated students the opportunity to study Calculus topics as a preparation for their college career. Topics include limits, derivatives, anti-derivatives, and indefinite and definite integrals. A study of transcendental functions is also included. Emphasis will be placed on application of Calculus topics and integration of graphing calculators to solve problems.

MM4127 Consumer Math Applications—Post Secondary Prep
Prerequisite: Geometry or Statistics and Probability
1S/2S 11-12 .50 CR
This elective is designed to develop mathematical skills and concepts as they apply to employment, recreation, and other adult consumer aspects. Problem solving and critical thinking skills will be a focus for project based learning. Students who have successfully completed Algebra 2 may not enroll in this course.

MM3014 Finite-Math—College Prep
Prerequisite: Geometry and Algebra 2
11-12 1.0 CR
This course is designed for the junior or senior student who wants to continue their study of math and intends to major in a non-scientific area such as business or liberal arts. Applications are stressed and techniques of problem solving are explored in the areas of sets and counting, number theory, probability and other advanced algebra topics. Students who have successfully completed a pre-calculus course may not earn credit for this course.
**MM3007 Statistics—College Prep**  
*Prerequisite: Geometry and Algebra 2 CP or Permission from Department Chair*

This elective course is designed for students who wish to continue their study of mathematics through an introduction to statistics and data analysis. The course is a study of standard approaches to statistical analysis, exploratory data analysis, elementary probability and sampling distributions.

**MM2115 Statistics and Probability - Honors**  
*Prerequisite: Algebra 1*

This course is designed to demonstrate the applications of mathematics in modern life through an introduction to statistics. With the aid of technology, students will study topics including random sampling, design of surveys and experiments, information from samples, confidence intervals, elementary probability, examining numbers and data critically, graphing and data analysis, written discussion of numerical analysis, and simulations.

**MM3115 Statistics and Probability - College Prep**  
*Prerequisite: Algebra 1*

This course is designed to demonstrate the applications of mathematics in modern life through an introduction to statistics. With the aid of technology, students will study topics including random sampling, design of surveys and experiments, information from samples, confidence intervals, elementary probability, examining numbers and data critically, graphing and data analysis, written discussion of numerical analysis, and simulations.

**MM4115 Statistics and Probability - Post Secondary Prep**  
*Prerequisite: Algebra 1*

This course is designed to demonstrate the applications of mathematics in modern life through an introduction to statistics. With the aid of technology, students will study topics including random sampling, design of surveys and experiments, information from samples, confidence intervals, elementary probability, examining numbers and data critically, graphing and data analysis, written discussion of numerical analysis, and simulations.

**MM4107 Statistics and Probability—Post Secondary Prep**  
*Prerequisite: Geometry*

This course is designed to demonstrate the applications of mathematics in modern life through an introduction to statistics. With the aid of technology, students will study topics including random sampling, design of surveys and experiments, information from samples, confidence intervals, elementary probability, examining numbers and data critically, graphing and data analysis, written discussion of numerical analysis, and simulations. **Students who have successfully completed Algebra 2 may not enroll in this course.**

**MM9103 SAT Preparation—Unleveled**  
*Prerequisite: Algebra 1 or Permission from Department Chair*

This course is designed to help prepare students for the SAT administration for mathematics. Learning is personalized through diagnostic assessments and student motivation. The use of technology helps to individualize student needs, along with teacher analysis of concentrated areas.

**MM4307 Math Modeling—Post Secondary Prep**  
*Prerequisite: Geometry*

This course allows students to model real-life phenomena through functions in order to solve problems. The use of technology helps develop the concepts and applications of linear, quadratic, exponential, and trigonometric functions with less emphasis placed on symbolic manipulation.

**SE9195 Every Day Math—Unleveled**  
*Prerequisite: Algebra 1 or Permission from Department Chair*

The course teaches basic math skills and concepts necessary to function in the community as independently as possible. Admission is through the PPT process only.

**SE9016 Transitional Math—Unleveled**  
*Prerequisite: Algebra 1 or Permission from Department Chair*

This course teaches Pre-Algebra and basic Algebra skills. Admission is through the PPT process only.
PERFORMING ARTS

The primary goal of the MHS Performing Arts Department is to offer all students the opportunity to explore and express their creativity and artistic development. Skill development rooted in a strong emphasis on the basics is at the heart of the Performing Arts program. Students may choose to participate in performing ensemble classes or classroom studies. There is an honors credit option available to all students participating in a performing ensemble.

**Vocal Performing Ensemble**
Chorus

**String Instrument Performing Ensembles**
Orchestra
Guitar Ensemble

**Band Instrument Performing Ensembles**
Concert Band, Jazz Ensemble, Percussion Ensembles

**Classroom Subjects**
Music Theory I & AP Music Theory
Theatrical Design
Guitar I, Guitar II & Guitar Ensemble
Digital Music I
Songwriting
Piano I & II

**Performing Arts Clubs (co-curricular) include:**
Chamber Orchestra, Handbell Choir, Jazz Choir, Marching Band, MHS Spring Musical, Roundtable Singers, Sock-'n-Buskin drama club, Santa Band, String Quartets, Cello Ensemble.

Students enrolling in a performing ensemble class must accept the obligation to participate in all scheduled performances and rehearsals, many of which may occur outside the regular school day. All members of performing groups participate in regular evaluation and assessment ranging from weekly lessons to individual skill reviews. These assessments account for a percentage of the student’s classroom grade. Enrichment activities for all members of MHS performing ensembles are encouraged. Among these suggested activities are: private music instruction, auditions for Connecticut Regional and All-State Music Festival, and other local musical activities.

**Benefits Of The Performing Arts Experience:**
- It is fun.
- Research shows a strong connection between sustained arts involvement and academic achievement.
- Develops creative and critical thinking skills.
- Enhances cultural development.
- Ensemble experiences promote teamwork and cooperative learning.
- Lifetime skills.
- Appreciation of the role of the arts in society.
**Higher Education And Performing Arts:**

- Colleges seek students with sustained involvement in the arts.
- Colleges seek creative and original thinkers.
- Career opportunities in performing arts, arts management, recording industry, retail, and many other arts related fields.

**Performing Arts At MHS:**

Manchester High School students have received recognition for excellence and have been involved with the community in the following ways:

- School concerts
- Major community events: Memorial Day Parade, Board of Directors Swearing in, Martin Luther King Day, Holiday on Main, events at the Manchester Senior Center
- Local trips: concerts in local schools, UCONN, statewide festivals and competitions
- Regional and National Trips to: Florida, New York, Boston, The Big “E”, Virginia Beach, Washington, DC

**Extra Opportunities Suggested For Advanced Musicians:**

All-State, Regional and All-New England Music Festival, and private music instruction, Honors level ensemble credit

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**Performing Arts Courses**

**PA3006 Chorus—College Prep**

Chorus is a performing ensemble designed to develop the vocal, choral, and overall musical experience of its members. It is a 4-part vocal ensemble open to all men and women in grades 9-12. Members are evaluated on basic music reading skills, as well as performance practices. The group performs a wide variety of musical styles, ranging from the 1600's up to today. Students may apply to receive honors level credit for this course. In addition to the regular curriculum, students fulfill a set of honors requirements each marking quarter. This option is available by arrangement with the instructor.

**PA9146 Musical Theater—Unleveled**

Musical Theater is an unleveled course which may be repeated, providing students an insightful exploration and execution of vocal musical theater techniques, strategies and collaboration. Students will work to prepare solo, small group, and large group performances for in class performances as well as showcase performances within the Performing Arts and Communication Academy. Students will critically research the scenes and shows they are performing from in order to authentically communicate their creative character choices. Outside performances will be a part of this class at the end of the second and fourth quarters as part of the midterm and final examinations.

**PA3031 Concert Band—College Prep**

Concert Band is an instrumental performing ensemble that includes all wind instruments. Individual skill development is a high priority. Emphasis is also placed on the study and mastery of the fundamentals of music using a variety of band literature. All Concert Band members are required to perform in scheduled school and community concerts. Members of the Concert Band will be required to attend 3-4 scheduled after-school dress rehearsals prior to each concert. Students also have the option of applying for honors credit in band through an arrangement with the instructor.
PA3036 Concert Band—College Prep 11-12 1.0 CR
Concert Band is an instrumental performing ensemble that includes all wind instruments. Individual skill development is a high priority. Emphasis is also placed on the study and mastery of the fundamentals of music using a variety of band literature. All Concert Band members are required to perform in scheduled school and community concerts. Members of the Concert Band will be required to attend 3-4 scheduled after-school dress rehearsals prior to each concert. Students also have the option of applying for honors credit in band through an arrangement with the instructor.

PA3025 Jazz Ensemble—College Prep 9-12 1.0 CR
Jazz Ensemble is a performance organization which includes saxophones, trombones, trumpets, and rhythm section. The focus of Jazz Ensemble is the study of music fundamentals, improvisation, and the performance of standard jazz literature. Auditions are held in the spring. Membership in concert band is required for all wind players. Rhythm section members must be enrolled in either Percussion Ensemble or another large ensemble Performing Arts Department class. Students may apply to receive honors level credit for this course. In addition to the regular curriculum, students will fulfill a set of honors requirements each marking quarter. This option is available by arrangement with the instructor.

PA3011 Orchestra 9—College Prep 9 1.0 CR
PA3027 Orchestra 10 —College Prep 10 1.0 CR
PA3026 Orchestra 11-12—College Prep 11-12 1.0 CR
Orchestra is an instrumental performance ensemble open to all students who play the violin, viola, cello or double bass. The emphasis is on individual skill development and continued mastery of music fundamentals and advancing string technique. The importance of collaborative music making is also a key element of the course. Students will study a variety of pieces from the standard orchestral repertoire, with required, graded performances scheduled throughout the year. Members are required to attend 3-4 after school dress rehearsals during the school year in preparation for performances. Students are assigned to orchestra by grade level, and may elect to receive honors credit at any grade level. Honors level students will fulfill an additional set of requirements each semester. This option is available by arrangement with the instructor at the beginning of the year.

PA1205 AP Music Theory—Advanced Placement 11-12 1 CR
AP Music Theory is a course designed for the advanced music student. Course work will include music composition, orchestration, musical styles (including non-western and ethnic forms), and advanced ear training. Students will also do extensive work with synthesizers, sequencers and computer-assisted composition. This course is recommended for students wishing to continue musical study beyond high school. The course provides preparation for the AP Exam in Music Theory, and students are expected to take this exam. Fee waivers are available to eligible students. Course is offered in alternate years.

PA3125 Theatrical Design—College Prep 1S/2S 9-12 .50 CR
Theatrical Design is a project-oriented survey course in theatrical design. Students will study four plays in depth and complete design projects in costuming, set design, lighting and directional blocking. Students are also required to serve 6 hours as interns or attend a live theatrical performance each quarter.

PA4105 Guitar 1—Post Secondary Prep 1S/2S 9-12 .50 CR
Guitar 1 is a one semester course for students in grades 9-12 who are interested in the study of the guitar in a classroom setting. No prior experience is necessary. This course covers basic guitar skills which will include music reading, playing techniques, open position melody and chord forms, blues song form and improvisation, basic music theory, a survey of guitar styles and equipment. Method books and acoustic guitars are provided for use in class. Students may bring their own guitar to class.

PA3405 Guitar 2—College Prep 1S/2S 9-12 .50 CR
Sequential: Guitar 1 or permission of instructor
Guitar 2 is a one semester course for students in grades 10-12 (9 in Semester 2) who have successfully completed Guitar 1 and are interested in further study of guitar in a classroom setting. Basic music reading skills are required. This course continues the skill set achieved in Guitar 1. Topics include music reading, playing techniques, melody and movable chord forms, Blues and Rock repertoire, song form and improvisation, music theory, and a survey of guitar styles and equipment. Method books and acoustic guitars are provided for use in class. Students may bring their own guitar to class. This course may be repeated for credit with permission of instructor.

PA3095 Guitar Ensemble—College Prep 10-12 1.0 CR
Sequential: Guitar 2 or permission of instructor
Guitar Ensemble is a full year course for students in grades 10 - 12 who have successfully completed the Guitar 2 curriculum. Music reading skill is required. Topics include reading in positions with movable scale patterns; movable chord forms; Blues, Rock, Classical and Jazz guitar repertoire and improvisation, guitar equipment, collegiate music preparation and music careers. This ensemble will have the opportunity to perform in the school concerts. Method books and acoustic guitars are provided for use in class. Students may bring their own guitar to class. Students should have a guitar at home for practice. This course may be repeated for credit with permission of the instructor.

**PA3505 Digital Music I—College Prep**

*Sequential: Piano I*

Students will use music/computer workstations to learn how to read, create and arrange music. Daily tutorials will advance the student's developing musical skills, and longer-ranged projects will introduce them to digital composition.

**PA3805 Digital Music II—College Prep**

*Sequential: Digital Music I*

This course introduces students to multi-track recording, composition and mastering techniques. Class projects will focus on producing audio for music distribution, radio and computer gaming. Topics such as mixing, digital mastering and use of effects will also be covered.

**PA9216 Digital Music III—Audio Production—Unleveled * 1S/2S 10-12 .50CR**

*Sequential: Digital Music II*

This course introduces students to the fundamentals of multi-track audio production. Students will explore recording techniques, including the choice of microphones and their placement, as well as mixing multi-track audio utilizing equalization, compression, reverb, and planning. With an emphasis on acoustics and music theory, class projects will focus on producing audio for music distribution, radio, computer gaming, compression, and reverb.

**PA3015 Percussion Ensemble—College Prep**

*9-12 1.0 CR*

Designed specifically for the continuing percussionist, this course combines the fun of playing percussion instruments with the development of solid technical and musical skills to prepare beginning percussionists for a role in the MHS Band program. Proper playing technique, music literacy, and basic percussion skills will be the focus. Preparing to perform at school concerts and other events is one of the class goals. Students who enroll in this course must have experience performing with a school music ensemble or have the permission of the instructor.

**PA3005 Advanced Percussion Ensemble—College Prep**

*Sequential: PA3015*

This course is by audition only and is a percussionist's dream! It has been designed to focus entirely on the skill development and issues related to performing on percussion instruments. Concepts covered range from the study of solid technical fundamentals to advanced techniques on mallet and auxiliary percussion instruments. Class time will be apportioned to include both full class and small ensemble activities. Members of the percussion ensemble class have the added bonus of performing as a group and as members of the Concert Band. Students will be expected to attend 3-4 after school dress rehearsals prior to every concert. Students may apply to receive honors level credit for this course. In addition to the regular curriculum, students will fulfill a set of honors requirements each marking quarter. This option is available by arrangement with the instructor.

**PA3117 Music Appreciation—College Prep**

*1S 9-12 .50 CR*

Music Appreciation explores the world of music from Bach to Rock. This course is designed for all students interested in learning about and listening to music. Students will study a wide range of musical styles including Classical, Blues, Jazz, and Rock and will learn about the famous musicians from the past to the present who have influenced the music of today.

**PA9105 Acting—Unleveled * 1S/2S 10-12 .50CR**

This repeatable, semester long class is differentiated to suit individual acting needs and skill levels. Members will learn and practice techniques in stage presence and movement, improvisation, scene study, and character analysis. Students will study great active performances as well as perform monologues and short scenes. Students have the option of applying for honors credit in acting through an arrangement with the instructor.
"Fashion and Design II: Costuming" is an academy elective taken within the Fashion and Design II course. Students will design and create costumes to support performing arts plays (fall show, spring musical).

This semester long course explores makeup technique and the hairstyles of different historical eras. Students will get hands-on practice with styling hair and applying stage and special effects makeup for stage and film.

This is a great class for beginners who want to learn piano and improve their musical skills. Students have daily piano exercises and songs to play, and utilize music theory software to advance their music literacy skills.

This course builds upon the skills learned in Piano I and explores topics such as playing by ear, transposition, technical exercises and basic music theory.

This repeatable, semester-long course is designed to develop the fundamentals of music and lyric composition. Students are required to perform basic chord changes, use standard musical notation, write appropriate lyrics in several styles, and utilize technology in their compositions. Students will study musical form and create both original and arranged compositions.

This course is designed for those who have some dance experience. Ensemble instructors will choose the style focus for each quarter (it is okay if you do not have experience in that particular style). Students will need appropriate dance clothes and/or shoes for the style being studied.

This is a recommended course for all PAC students that may be taken during sophomore or junior year (optional for the students in the Classes of 2017 and 2018). Teachers will work closely with the students to identify and pursue personalized explorations and career pathways (performing arts and communications or otherwise) that meet the students’ needs and interests. This may include experiential learning or in-depth research designed to prepare students for an independent capstone project.

*Enrollment preference will be given to students in the Performing Arts Academy.
Performing Arts Co-Curricular Clubs

Chamber Orchestra
The MHS Chamber Orchestra is an advanced string ensemble open to any student registered for an orchestra class. Members are selected through an audition process at the beginning of the school year. The Chamber Orchestra rehearses one evening a week, along with weekly, student-led sectionals. The Chamber Orchestra performs several times throughout the year at school and community events, and is one of the most prestigious music ensembles at MHS. This group travels overnight periodically with other advanced MHS music groups. This often requires participation in both group and individual fundraising activities.

Roundtable Singers
Roundtable Singers is a select group of singers with advanced vocal and music reading skills. Membership is dependent upon audition, and it is considered a year-long commitment. Auditions are held in June for the following year, with supplemental auditions in the fall. Auditions for Roundtable Singers will be given to current members of Chorus and Chorale. Members who are not enrolled in Chorus or Chorale will be expected to participate as members in those organizations during concerts. Roundtable Singers are expected to participate in several performances outside of high school concerts. Roundtable Singers rehearse for 1 1/2 - 2 hours each week - rehearsal times are after school. In addition to regular rehearsal times, a weekly sectional rehearsal is required. Members should expect to participate in all performances, including overnight trips. This often requires participation in both group and individual fundraising activities.

Jazz Choir
Jazz Choir is a small ensemble of 12-16 students who are interested in singing Jazz and Popular styles of music. Auditions for this group are held in September. The group meets once each week after school. The Jazz Choir travels with the Roundtable Singers and participates in competitions and festivals. Members should expect to participate in all performances, including overnight trips. This often requires participation in both group and individual fundraising activities.

Handbell Choir
A Handbell Choir is made up of several performers playing 80 bronze bells. The ensemble meets once a week after school. An understanding of rhythm is necessary, but no other musical experience is required. The group performs in two high school concerts and also travels to a day-long festival in the area each year. During the holiday season, the Handbell Choir is often invited to perform in the community. The handbell choir also travels with the Roundtable Singers for their Spring tour. This requires participation in both group and individual fundraising activities.

Marching Band
Marching Band is great fun! The Manchester High School Marching Band is one of the school’s most active organizations. Students learn to combine the skills of music performance and movement to produce the band's annual halftime show. The Marching Band begins the school year with a one week ‘pre-season’ program held prior to the first day of school. This ‘pre-season’ band program is essential to the success of the organization. It is also cited by parents and students as an important transition period from 8th grade into MHS.

A typical Marching Band season lasts through the Thanksgiving football game and includes performances at home football games, out-of-town band festivals, the “Big E” parade, and community service events.

During the course of the season, the marching band has full group rehearsals every Monday, Wednesday, and Friday afternoons from 2:30— 4:30 p.m. The Colorguard and Percussion sections have an additional, separate weekly rehearsal.

This activity is designed for every band member (both wind and percussion instruments) and any student who wishes to perform in the Colorguard. Students in grades 9—12 have the option to join the Marching Band.

Sock-'n-Buskin (drama club)
Sock-'n-Buskin, the MHS Drama Club, is open to all students of MHS with an interest in theatre. SnB produces two live full-length theatrical performances each school year, as well as participates in the Homecoming Parade. They also present one to two smaller productions each year. SnB also plans a trip to New York City for a Broadway show each year.
Spring Musical Production
The Spring Musical Production is a “Broadway style” production of a popular piece of American Musical Theatre. Auditions for the production are in December. Music and staging rehearsals begin after the December holiday break. Rehearsals are generally Monday - Friday from 3:15 - 5:30 with some evenings included as scheduled. In early March, the rehearsal schedule becomes more involved, culminating in three performances in Mid-March.

Santa Band
The Santa Band is a community service ensemble that prepares holiday music for a variety of events in our Manchester community. This ensemble rehearses once per week from November through December.

Stage Band
The Stage Band is Manchester High School's second jazz ensemble. The Stage Band is open to any instrumental music student with an interest in learning about jazz. This ensemble meets once a week for 90 minutes starting in late November. Performances at both school and community events are typical.

String Quartets
String quartets are comprised of students from the Chamber Orchestra who seek an even more advanced and independent musical experience. These small, student-directed ensembles perform frequently at community and school events.

Modern Band
Modern Band is a contemporary band program sweeping the nation where students can play guitar, piano, drums, bass and other instruments in a variety of styles and genres. Students will learn how to be part of a “rock” band, which includes everything from learning their instrument, communicating with bandmates, learning how to set up amps. P.A. systems, microphones and everything else in order to perform in a concert setting.
Departmental Goals:
- Exposure to a variety of individual and team sports
- Understanding the positive benefits of Physical Education
- Confidence and knowledge to participate in fitness activities for a lifetime

Essential Skills:
- Leadership
- Problem Solving (Group and Individual)
- Communication
- Self Initiative
- Individual and Team Work
- Sport and Individual Skillwork
- Water Safety

PHYSICAL EDUCATION
Grades are based on points accumulated during each class meeting. Students are expected to attend class, change into PE clothes and be prepared to participate in the class activity. Written tests, quizzes and other assignments may also be used to determine the grade. Only students who are excused from regular physical education by a physician will be exempt from classes. For any prolonged illness or injury, the physician must submit the necessary school forms to the nurse. A determination is then made concerning placement for the student.

All Physical Education classes are offered on the PSP level.

Physical Education Courses

**PE4311 Intro to PE**
Q1, Q2, Q3, Q4  9 .25 CR
All grade 9 PE students will begin their high school experience with this introductory class. Students will be introduced to a variety of activities that will involve team sports, individual sports, recreation/leisure, and personal fitness.

**PE4315 Success Driven PE**
11-12 .25 CR
This class is specifically for Juniors and Seniors that have struggled to participate in traditional Physical Education classes. The goal of this class is to help students find their intrinsic motivations for success in the gym. Whether that be personal fitness activities, or game play.

**PE4113 Physical Education**
Q1 10-12 .25 CR
**PE4123 Physical Education**
Q2 10-12 .25 CR
**PE4233 Physical Education**
Q3 10-12 .25 CR
**PE4243 Physical Education**
Q4 10-12 .25 CR
There are 4 main components of Physical Education styles from Team Sports, Leisure activities, Individual Sports and Personalized Fitness/Weight Training. This class allows students to choose their area of interest and learn more within those areas. All students, no matter the focus they choose, will develop communication and cooperation skills.

**Course Offerings: Grades 10-12**

Below are the four courses students may choose from. The activities are subject to change depending on enrollment, teaching space, equipment and weather. Students are not guaranteed their first choice although every attempt will be made to give students their first choice.

**PE4725 Beginner Swim Class**  
1Q 9 .25 CR  
The Red Cross six-level Learn-to-Swim program is designed for children over 6 years all the way up to adults. Manchester students will progress through the levels at their own pace, mastering the skills in one level before advancing to the next. Each level of our Learn-to-Swim class will include training in basic water safety and helping others in an emergency, in addition to stroke development. The focus for our program will be students starting in levels 1 & 2.

- Level 1: Introduction to Water Skills  
- Level 2: Fundamental Aquatic Skills  
- Level 3: Stroke Development  
- Level 4: Stroke Improvement  
- Level 5: Stroke Refinement  
- Level 6: Swimming and Skill Proficiency

**PE4235 Unified PE**  
Q3 9 - 12 .25 CR  
This co-taught course is designed to unite regular education students with special education classmates that have a variety of different learning challenges that may be physical, social or intellectual. The Unified PE class is often a step towards joining the Unified Sports team that competes inter-scholastically. Activities may include: team and individual sports, dance, music and a wide variety of recreational activities. The course may be repeated for credit.

**PE9506 Sports Team Management**  
10-12 .25 CR  
After school—Must have permission of the Athletics Director  
This .25 credit course will occur after school during the teams practice and competition. Students will meet with the course instructor on a weekly basis to review the progress of the season, offer analysis and feedback of the experience. It is not recommended that athletes take this course during their season. This is like a "job shadow". Students will assist coaches with a wide variety of responsibilities. This will vary by coach and sport. The student will gain an understanding of the other side of the sport. Management, organization planning, film, statistics, injuries, game day responsibilities, etc.

**PE9517 Advanced Sports Training**  
10-12 .25CR  
This course is tailored to Athletes and high activity level students. The goal is to train them in advanced speed, agility, strength and conditioning.

**PE4717 Advanced Team Sports**  
10-12 .25CR  
Prerequisite: has passed team sports class  
Traditional team sports activities performed at high levels. Students will learn advanced concepts, strategies and techniques.
This course is designed to expose students to a variety of non traditional american sports. Sports could include: Badminton, Cricket, Tchoukball, Futsal, Rugby, Jai Alai, Team Handball, Irish Road Bowling, Barbadian Road Tennis and Bandi. One of the goals is to allow students to gain an appreciation of a variety of cultures through sports.

Health Courses

Students at Manchester High School take a semester of Junior Health, and one quarter of Freshman & Senior Health.

**HE4111 Freshman Health—Post Sec. Prep**  
1Q/2Q/3Q/4Q  9 .25 CR  
Students are introduced to a variety of wellness issues. Personal choices and personal responsibility are emphasized in relation to issues. Topics include: health issues, self-esteem, depression, substance abuse, healthy relationships and human growth and development.

**HE4123 Junior Health—Grade 11—Post Sec. Prep**  
1Q/2Q/3Q/4Q  11 .25 CR  
A variety of topics are covered in depth in this comprehensive course. Personal choices and personal responsibility are emphasized in relation to health issues. Topics include: human growth and development, nutrition, disease prevention (includes AIDS education), physical, mental and emotional health, relationships, dating violence and suicide prevention. Specific community resources are identified and utilized throughout this course.

**DE4114 Senior Health—Post Sec. Prep**  
1Q/2Q/3Q/4Q  12 .25 CR  
Students will expand their current knowledge on issues that impact their personal health and the well-being of the community. Alcohol poisoning, drunk driving, drug abuse, and sexual assault are issues that need to be discussed to ensure individual and communal safety. Students are asked to evaluate their current behaviors and explore the possible consequences of their decisions. Societal problems that result from the above issues are also discussed and the role that each citizen plays in the solution. Standard First Aid/CPR/AED training is also taught in this course.

**HE4115 Universal Health**  
1Q/2Q/3Q/4Q  .25 CR  
Universal Health is a great alternative way to finish your wellness credits at MHS. The class covers units on the following topics: social media safety, cancer, vaping, nutrition and dating violence. Universal health is a fun way to obtain .25 credits in health, safety and wellness.
Science

The science department's goal is to prepare students for a future in which science and technology will continue to play an increasing and integral role in the lives of individuals and society. We will work hard to develop these students as science thinkers by developing their critical thinking and problem solving skills. By implementing a comprehensive Next Generation Science Curriculum that includes inquiry-based, hands-on learning, we hope to give students the skills to continue growing as a scientifically literate citizen. Whether entering a profession in the science field or not, the skills acquired within courses in the science department will transfer and help to make students successful in any path they choose.

In this department courses primarily emphasize these capacities from our Vision of a Graduate:

- **Critical Thinking:** Analyze and evaluate ideas, claims, and/or representations to construct meaning
- **Self-Direction and Task Management:** Complete task(s) through the development of timeline and plan, monitor progress through a feedback loop to meet designated timelines
- **Communication:** Express ideas and share information to effectively engage an audience for a given purpose and task

**Community Based Learning and School Based Enterprises:**

- EMT certification
- CNA certification
- PERRY Initiative (Women explore STEM with University partners)
- American Red Cross Blood Drives: Students may apply for an internship with Saint Francis Hospital after attending the “Let’s Not Meet by Accident” field trip.
- Students apply for volunteer experience with Hartford Hospital Volunteer Program
- Hartford Hospital CESI Simulation Center Field Trip
- Stop the Bleed Certification related to participation at the Let’s Not Meet by Accident field trip

The Science Department offers the following courses:

<table>
<thead>
<tr>
<th>Biological Life Sciences</th>
<th>Physical Sciences</th>
<th>Medical Careers Academy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biology</strong></td>
<td><strong>Astronomy</strong></td>
<td><strong>Investigations in Health Careers</strong></td>
</tr>
<tr>
<td><strong>AP Biology</strong></td>
<td><strong>Earth and Space Science</strong></td>
<td><strong>Introduction to Allied Health</strong></td>
</tr>
<tr>
<td><strong>Marine Science</strong></td>
<td><strong>Forensic Science</strong></td>
<td><strong>MCA Seminar</strong></td>
</tr>
<tr>
<td><strong>Animal Behavior</strong></td>
<td><strong>Chemistry</strong></td>
<td><strong>Medical Terminology</strong></td>
</tr>
<tr>
<td><strong>Human Anatomy and Physiology</strong></td>
<td><strong>AP Chemistry</strong></td>
<td><strong>EMT Training</strong></td>
</tr>
<tr>
<td><strong>Sports Medicine</strong></td>
<td><strong>AP Environmental Sciences</strong></td>
<td><strong>CNA Training</strong></td>
</tr>
<tr>
<td><strong>Science Research 1</strong></td>
<td><strong>Physics</strong></td>
<td><strong>Biochemistry</strong></td>
</tr>
<tr>
<td><strong>Science Research 2</strong></td>
<td><strong>AP Physics 1</strong></td>
<td><strong>Biochemistry 1</strong></td>
</tr>
<tr>
<td><strong>Veterinary Science</strong></td>
<td></td>
<td><strong>Biochemistry 2</strong></td>
</tr>
<tr>
<td><strong>Botany</strong></td>
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</tbody>
</table>
Science Courses

LIFE SCIENCES

SC2032 Biology—Honors 10 1.0 CR  
SC3032 Biology—College Prep

Prerequisite: Earth & Space Science of Administrator Approval
All students taking Biology will have the same core course material, studying the topics of ecology, biochemistry, cell structure and function, genetics and evolution. The curriculum is aligned with Next Generation Science standards. All levels of biology emphasize a hands-on, phenomena based approach to increase student involvement in their learning. Labs and activities are done to illustrate the conceptual material.

SC1032 AP Biology—AP 11-12 2.0 CR  
Sequential: Biology Honors or CP Level (B or better) & Chemistry Honors or CP Level (B or better)
AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. The AP Biology course is equivalent to a two-semester college introductory biology course for biology majors. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Summer assignment completion is required for this course. ALL students are required to take the AP Exam and pay the fee. Fee waivers are available for eligible students.

SC3107 Animal Behavior—College Prep 1S/2S 10-12 .50 CR
Behaviors that help animals survive in their natural environments are studied extensively in this course. We learn about various animal behaviorists and their contributions to the field, what causes behaviors and how they develop throughout the course of an animals life, functions of behavior, the social interactions of animals, and lastly, how animals have the capacity to learn behaviors starting at a young age. This course ties the content in each unit to behaviors displayed by a wide variety of animal species. Handling of living specimens may occur during the semester.

SC2037 Human Anatomy and Physiology—Honors 10-12 1.0 CR  
SC3027 Human Anatomy and Physiology—College Prep 10-12 1.0 CR  
Prerequisite: At least a C or better in Biology CP
Human Anatomy and Physiology provides an in-depth understanding of human organ systems, their structures, functions, and malfunctions. Topics covered in the first semester include a review of cells, tissues, skin, and skeletal, muscular, and nervous systems. Laboratory work will deal with the structure, function, and diagnostics of each system. During the second semester, topics covered include the structure, function, and malfunction of the following body systems: blood and cardiovascular, lymphatic, endocrine, reproductive, digestive, respiratory, and urinary. Emphasis is placed on laboratory skills with some dissection required.

SC3217 Marine Science—College Prep 1S/2S 10-12 .50CR
This course introduces students to all of the wonders the vast oceans of the world have to offer. It begins with gaining an understanding of how the ocean is utilized along with the technology used to study it. From there, students will dive deeper into the physics behind the water (waves, tides, currents) and how it impacts all living things. Lastly, students will have a chance to explore various species of epifauna and infauna and how conservation of our waters is crucial to maintaining all forms of life. Some dissection is required.

BIOCHEMISTRY (2 year course)
BioChemistry is a two-year, single-blocked sequence that will prepare students for a professional science career path. Throughout the two years, the course will combine the Biology and Chemistry curriculum and the Health Science Foundational Standards. Students will work to apply biochemical concepts to the medical field through examination of case studies and other methods to strengthen science literacy. The course will be lab-intensive to expose students to appropriate scientific research methods and laboratory skills. The
Students who sign up for this course must complete both BioChemistry I and BioChemistry II.

**SC2012 BioChemistry I—Honors**
10 1.0 CR
Sequential: Earth & Space Honors, Algebra 1 Honors
BioChemistry I focuses on four units: Elemental Structure and Interactions, Implications of Structural Change, Expression of Concentration, and Interactions of Ecological Communities. Topics discussed in this year of study include atomic structure and bonding, properties of water, organic chemistry, cellular structure and reproduction, solution chemistry, cell transport, and homeostasis.

**SC2023 BioChemistry II—Honors**
11 1.0 CR
Prerequisite: BioChemistry I
BioChemistry II focuses on five units: Transfer of Energy, Compounds and their Reactions, Genetics and Beyond, Buffers and the Body, Implications for Change Through Time. Topics discussed in this year of study include cellular energy and photosynthesis, ionic compounds and stoichiometry, Mendelian and molecular genetics, biotechnology, pathogens and disease, acids and bases, and evolution.

**SC3347 Botany—College Prep**
11-12 .50 CR
Prerequisite: Biology
Botany is the scientific study of plants and their relationship to the environment. In this course students investigate the growth, reproduction, anatomy, morphology, physiology, taxonomy, genetics and ecology of plants. Laboratory and outdoor experiences complement classroom activities.

**SC2057 Health Care Occupations - Comprehensives- Honors**
11-12 1.0 CR
Prerequisite: At least a B or better IHC. Enrolled in Medical Careers Academy or permission of Academy Administrator
This course focuses on an overview of 14 allied health professions from an assortment of health care clusters. Guest speakers will anchor our study about their profession. They will describe their work / general duties and responsibilities of their profession, the work environment, educational requirements and scope of practice. We will explore the healthcare industry through the lens of these professionals. We will highlight the knowledge and skills required of these professionals and provide opportunities to practice some of the related clinical skills with hands-on activities. Students will examine how each profession evaluates and cares for patients. Students may elect to enroll and receive credit for the ECE UConn course Allied Health 1100: Introduction to Allied Health Professions. Students who elect for UConn credit must pay a fee and complete the UConn requirements. Fee waivers are available to eligible students. See your counselor for program requirements.

**SC9117 Sports Medicine—Unleveled**
2S 11-12 .50 CR
Prerequisite: Investigations in Health Careers or permission of Academy Administrator
Students are introduced to the discipline of kinesiology and recreation. They will study the effects of physical activity on human beings. Topics will include exercise physiology, biomechanics, motor behavior and socio/psychological perspectives of participation in activity through the lifespan. Students will also investigate how the discipline can be applied professionally. A Physical Therapy Assistant certification opportunity may be developed in the future, but is not currently available.

**SC9038 EMT Training**
11-12 2.00 CR
Instruction in basic life support skills, treatment of bleeding control and shock recognition, care for trauma victims, medical emergencies. Supervised practice experience and hands-on instruction of theory. Includes a 10 hour observation experience outside of classroom instruction. Meets the performance requirements of the National Registry of Emergency Medical Technicians (NREMT) certification exam. Must be 16 years old by the completion of the course.

**SC9028 CNA Training**
11-12 1.25 CR
Provides the information and skills training that will enable individuals to provide quality care for residents in long-term care facilities and other health care settings. Individuals successfully completing this training will be eligible to take the state exam for certification as a nurse assistant (CNA).

**SC3327 Veterinary Science—College Prep**
1S/2S 11-12 .50 CR
Sequential: Investigation in Health Careers OR Permission of Academy Administrator
This course will focus on the study of disease, treatment, nutrition, as well as proper handling techniques of domestic animals and livestock. An introduction to general anatomy and physiology and comparative anatomy will be covered, when relevant. This course will prepare the students for potential job shadowing opportunities in a veterinary clinic.
SC2047 UConn ECE Medical Terminology - Honors 11-12 1.0 CR
Prerequisites: C or better in Biology, Human Anatomy & Physiology and English (CP level or higher).
This Early College Experience course focuses on the introduction and mastery of medical terminology through presentation of word roots, prefixes and suffixes. It gives students the chance to earn 1 semester hour credit from the University of Connecticut for successful completion. Students who elect for UConn credit must pay a fee and complete the UConn requirements. Fee waivers are available to eligible students. See your counselor for program requirements.

SC9106 Investigations in Health Careers—Unleveled 10 .50 CR
Prerequisite: Enrolled in the Medical Careers Academy or permission of Academy Administrator
Students in this course will explore assorted career clusters such as Dentistry, Veterinarian Services, Medical Imaging, Therapeutic Services, Sports Medicine, Nursing, Emergency Medical Technician and Pharmacy Services. Students will expand their knowledge by completing labs embedded with clinical skills related to their interests. Course topics will also include medical legal issues, ethics, basic anatomy and physiology, medical terminology, and public health. Students will complete a personalized research project to determine a tangible pathway for a healthcare career that works for them.

PHYSICAL SCIENCES

SC2051 Earth and Space Science—Honors 9 1.0 CR
Students in high school continue to develop their understanding of the three disciplinary core ideas in the Earth and Space Science, building on the middle school ideas and skills which allow high school students to explain more in-depth phenomena central not only to the earth and space sciences, but to life and physical sciences as well. These performance expectations blend the core ideas with scientific and engineering practices and crosscutting concepts to support students in developing usable knowledge to explain ideas across the science disciplines.

SC3051 Earth and Space Science—College Prep 9 1.0 CR
Students in high school continue to develop their understanding of the three disciplinary core ideas in Earth and Space Science, building on the middle school ideas and skills which allow high school students to explain more in-depth phenomena central not only to the earth and space sciences, but to life and physical sciences as well. These performance expectations blend the core ideas with scientific and engineering practices and crosscutting concepts to support students in developing usable knowledge to explain ideas across the science disciplines.

SC3317 Astronomy—College Prep 1S/2S 9-12 .50 CR
Prerequisite: Algebra I
Skills developed in Algebra I will be used to investigate topics of current interest such as formation of stars, planets, our solar system, origin of chemical elements, novae and supernovae, white dwarfs, neutron stars, black holes, active galaxies, quasars, asteroids, meteors, distances in space and explore the possibility of life outside of Earth. The topics listed above may vary due to current events in astronomy.

SC1007 AP Chemistry—AP 11-12 2.0 CR
Sequential: Algebra 2, Honors level, or by permission of the department instructional leader
AP Chemistry places emphasis on atomic theory, bonding, chemical calculations, mathematical formulation of principles, and a laboratory component stressing qualitative and quantitative analysis. Students are required to take the AP Exam and pay the fee. Fee waivers are available for eligible students.

SC2007 Chemistry—Honors 10-12 1.0 CR
Sequential: Algebra 1 - Honors or permission of the department head

SC3007 Chemistry—College Prep 10-12 1.0 CR
Sequential: Algebra 1 - College Prep level
Prerequisite: Physical Science and Biology
All students taking Chemistry will have the same core course material. Topics include the mole, formula writing, principles of chemical reactions, quantitative measurements of reactions, a study of energy change, rates of reactions, atomic theory, chemical bonding, acids
and bases, and organic chemistry. Supplementary topics may be added by the instructor based on time available and student interests. The curriculum is to be aligned with National standards for science. The depth of content and the independence at which the students work determines the level of the course which should be selected. All levels of chemistry emphasize a student-centered activity approach to increase student involvement in their learning. Labs are done on a weekly basis with lab write-ups required.

SC1006 AP Environmental Science—AP  10-12  1.0 CR
Prerequisite: Biology / Co-requisite: Chemistry
This course follows the guidelines put forth by the College Board in order to prepare students for the Advanced Placement exam in Environmental Science. Topics include principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze both natural and human made environmental problems, to evaluate the relative risks associated with these problems and to examine alternative solutions for resolving and/or preventing them. All students are required to take the AP exam and pay the fee. Fee waivers are available for eligible students.

SC3137 Forensics: Evidence and Analysis—College Prep  1S/2S  10-12  .50CR
Prerequisite: Passing Grade in Biology or Earth Space Science
Forensics: Evidence and Analysis will address many topics: types of evidence, document analysis, blood, fiber and hair, and fingerprinting. This course will utilize the Next Generation Science Standard Practices such as carrying out an investigation and argumentation from evidence. Each unit will provide students with an opportunity to explore real world case studies and complete hands-on activities. Upon completion of this course students will have a better understanding of the chemistry, biology, and physics behind Forensic Science.

SC3147 Forensics: Hidden Clues—College Prep  1S/2S  10-12  .50CR
Prerequisite: Passing Grade in Biology or Earth Space Science
Forensics: Hidden Clues will address many topics: human remains/death, Forensic geology & palynology, ballistics & impressions, toxicology & drugs, and crime scenes/CSI. This course will utilize the Next Generation Science Standard Practices such as carrying out an investigation and argumentation from evidence. Each unit will provide students with an opportunity to explore real world case studies and complete hands-on activities. Upon completion of this course students will have a better understanding of the chemistry, biology, and physics behind Forensic Science.

SC1037 AP Physics 1—AP  11-12  1.0 CR
Sequential: Honors Geometry
Corequisite taking Honors Algebra II or PreCalculus.
AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these 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. This course requires that twenty-five percent of instructional time be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to demonstrate the foundational physics principles and apply the science practices by providing opportunities for students to engage in the seven science practices as they design plans for experiments, make predictions, collect and analyze data, apply mathematical routines, develop explanations, and communicate about their work. Students should take this course if they plan to go into an engineering or physical science program after high school.

SC2017 Physics—Honors  10-12  1.0 CR
Sequential: Honors Geometry
Corequisite: Honors Algebra II or PreCalculus.
This rigorous full-year course provides students with an engaging honors-level curriculum that emphasizes abstract reasoning and applications of physics concepts to real-world scenarios. Topics are examined in greater detail than in CP physics and provide a solid foundation for collegiate-level coursework. Course components include one- and two-dimensional motion, momentum, energy, harmonic motion, waves, electricity, magnetism, optics, and circular motion. Throughout the course, students participate in a variety of interactive and hands-on laboratory activities that enhance concept knowledge and develop scientific process skills, including scientific research and technical writing.

SC3017 Physics—College Prep  10-12  1.0 CR
Sequential: Algebra 2 College Prep minimum
Co-requisite: Finite Math or Pre-Calculus or permission of department instructional leader
Physics is a laboratory science course with an emphasis on the scientific method and the fundamental principles of physics. This course is designed to provide students with a foundation for further study in biology, chemistry, and advanced science courses. This
course offers the subject matter of a traditional physics course with a qualitative approach to problem solving. While the mathematical application to physics will be deemphasized, it will not be eliminated. General areas of study will include mechanics, motion, astronomy, light, sound, magnetism and electricity. Throughout the course, students participate in a variety of interactive and hands-on laboratory activities that enhance concept knowledge and develop scientific process skills, including scientific research and technical writing.

**SC2006 Science Research 1—Honors**

This course is a one-year elective introducing students to the process of scientific research. Students choose a topic and search for journal readings to develop their knowledge of the topic. Students will create and present scientific posters and research papers based on their findings. Students may choose to pursue further during Science Research 2. Completion of this course satisfies the independent research requirement for Science Scholars.

**SC2027 Science Research 2—Honors**

*Prerequisite: Science Research 1*

This course is a two-year elective in which students continue their research and develop an original research project on that topic. The students will find a mentor, plan the project, and see it through to its conclusion. During their senior year, students are required to present their research findings at competitions and symposia. Students may elect to take the course for college credit, for a total of up to twelve credits from the State University of New York.
Science Scholar Requirements

In order to graduate as a science scholar, students must complete 7 science credits and follow the guideline below:

<table>
<thead>
<tr>
<th>All 4 (4.0 credits total) of the following:</th>
<th>A MINIMUM of 3.0 credits from the following list:</th>
<th>And complete both:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Earth Space</td>
<td>• AP Biology</td>
<td>• Independent Study Project</td>
</tr>
<tr>
<td>• Biology (Biochem I)</td>
<td>• AP Physics (May substitute for Physics)</td>
<td>• Presentation at School Science Symposium</td>
</tr>
<tr>
<td>• Chemistry (Biochem II)</td>
<td>• AP Environmental</td>
<td>• AP Chemistry (May substitute for Chemistry)</td>
</tr>
<tr>
<td>• Physics</td>
<td>• AP Chemistry</td>
<td>• Science Research</td>
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<td>• ECE Medical Terminology</td>
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<td></td>
<td>• MCC Anatomy and Physiology</td>
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<td>• One Elective Credit</td>
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</tbody>
</table>

Examples of work that may meet this requirement include: Participation in the district science fair, participation in the Connecticut Invention Convention, Vex Robotics, Independent Research (may be met through successful completion of the science research course)
### Potential Pathways:

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth &amp; Space</td>
<td>Biology</td>
<td>Chemistry</td>
<td>Physics</td>
</tr>
<tr>
<td></td>
<td>Science Research 1</td>
<td>Science Research 2</td>
<td>Science Research 2</td>
</tr>
<tr>
<td></td>
<td>optional science course</td>
<td>optional science course</td>
<td>AP Science Course</td>
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</tbody>
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<td></td>
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<th>Senior Year</th>
</tr>
</thead>
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<tr>
<td>Earth &amp; Space</td>
<td>Biochemistry I</td>
<td>Biochemistry II</td>
<td>Physics</td>
</tr>
<tr>
<td></td>
<td>Science Research 1</td>
<td>optional science course</td>
<td>AP Science Course</td>
</tr>
<tr>
<td>Ex: Sci 2 or A+P or AP</td>
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</tbody>
</table>

### Science Scholar Program Outline:
- Complete application by December of Senior year
- Take 7 science credits as shown above to include at least one Advanced Placement.
- Attend any meetings when held
- Have an overall average of:
  - B or better in science courses and no course lower than C (Science Scholar)
  - A- or better science courses and no course lower than B- (Science Scholar w/Distinction)
SOCIAL STUDIES

The Social Studies department of Manchester High School focuses instruction on three areas. Classes teach students the skills they will need to succeed inside and outside the school walls. Secondly, the Social Studies Department exposes students to content from areas such as History, Geography, Economics, Philosophy, Culture and Political Science. Students are instructed and encouraged to apply these skills and content knowledge in practical applications. Finally, the Social Studies department primarily focuses on the Critical Thinking and Communication Cross-Disciplinary Capacities to support the MHS Vision of a Graduate.

Students who wish to graduate from Manchester High School are required to earn 4 credits in Social Studies. In addition to credit requirements, all students must complete the following Board of Education requirement:

“In the senior year all students will complete a Service Learning project in one of the following classes, Participation in American Society, Law & Order, Law & American Society or AP United States Government & Politics. Failure to complete this project will prevent the student from graduating with a diploma.”

**Students follow the course of study below. The required courses are:**

<table>
<thead>
<tr>
<th>Grade 09</th>
<th>Roots of Global Civilization (1.0 credit) &amp; Freshman Seminar (.50 credit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 10</td>
<td>Modern World History, Humanities or AP World History (1.0 credit)</td>
</tr>
<tr>
<td>Grade 11</td>
<td>Modern United States History, American Studies or AP U.S. History (1.0 credit)</td>
</tr>
</tbody>
</table>

**Students must pick ONE of the courses below in the senior year to earn .50 credits. They may also choose to take more than one of these courses as an elective. The choices are:**

| Grade 12 Participation in American Society (.50 credit) |
| Grade 12 Law & Order (.50 credit) |
| Grade 12 Law & American Society (.50 credit) |
| Grade 12 Advanced Placement United States Government & Politics (1 credit) |

All students in their Junior or Senior Year must take Human Rights (.50 credit)

**In addition to the required courses, the Social Studies Department offers the following Elective Courses:**

<table>
<thead>
<tr>
<th>Advanced Placement United States Government and Politics</th>
<th>Sociology Advanced Placement Art History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law &amp; Order</td>
<td>Psychology</td>
</tr>
<tr>
<td>Advanced Placement Microeconomics</td>
<td>Truth</td>
</tr>
<tr>
<td>African-American History</td>
<td>Economics</td>
</tr>
<tr>
<td>Advanced Placement Psychology</td>
<td>Human Rights</td>
</tr>
<tr>
<td>Advanced Placement Psychology</td>
<td>Puerto Rican/Latino Studies</td>
</tr>
<tr>
<td>Advanced Placement Psychology</td>
<td>Modern American Music &amp; Film</td>
</tr>
<tr>
<td>Sociology</td>
<td>Criminology</td>
</tr>
<tr>
<td>Advanced Placement History</td>
<td>UCONN Latin American Studies</td>
</tr>
<tr>
<td>Psychology</td>
<td>UConn Human Rights</td>
</tr>
<tr>
<td>Truth</td>
<td>UConn Conflict &amp; Peace Studies</td>
</tr>
<tr>
<td>Economics</td>
<td>UCONN Maritime Studies</td>
</tr>
<tr>
<td>Human Rights</td>
<td></td>
</tr>
</tbody>
</table>
Social Studies elective courses are designed to provide concentrated study on specialized topics, to meet student interests and needs, and to acquaint students with employment opportunities in related Social Studies fields.

Required courses for the 9th, 10th, 11th grades are offered on all levels. Elective courses are also offered at a variety of levels.

Social Studies Required Courses

9th Grade

SS2001 Roots of Global Civilization—Honors  9  1.0 CR
SS3001 Roots of Global Civilization—College Prep  9  1.0 CR

This course begins with an introduction to the areas of Social Studies. Students will explore topics in history, economics, culture, government, and geography during the first quarter of the school year. Students will then begin a survey of World History. From the origins of man until the formation of empires around the world, students will explore world history using skills developed in the first part of the course. Students will also focus on making connections from the past to the present.

10th Grade

SS1012 AP World History—AP Level  10  1.0 CR

Prerequisite: An “A” in freshman honors level social studies or written recommendation of the instructor

The purpose of the Advanced Placement World History course is to develop a greater understanding of the evolution of global contacts and processes, in interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. Focused primarily on the past 750 years, the course emphasizes cultural, institutional, and technological events, along with geography of the empires of China and Mesoamerica; the expansion of Islam, Mongol dominance, and the period of new political units in Africa and Europe. Students are required to take the AP exam in May and pay the fee for this exam. Fee waivers are available for eligible students. Students will complete extensive reading in both primary and secondary sources, as well as numerous written assignments.

SS2022 Humanities—Honors  10  1.0 CR

Corequisite EN2022, Block code SS20B2

This course examines modern World History through an interdisciplinary model. The course will be team-taught by members of the Social Studies and Language Arts faculty. Students will focus on skill development and common core tasks as they examine the origins of the modern world through the present. The course will focus on cultural studies as well as the history and literature of a time period. Students will examine art, architecture, and music to fulfill the interdisciplinary mission of the course.

SS2012 Modern World History—Honors  10  1.0 CR
SS3012 Modern World History—College Prep  10  1.0 CR

Prerequisite: Grade 9 Social Studies

The focus of this course is to examine the interaction of the Western and non-Western world from 1500 to the present. Developments in the West will be a major focus of the 10th grade requirement; in addition, the focus will be placed on non-Western cultures prior to and independent of their interaction with Europe, giving the students a truly worldwide view of history.

11th Grade

SS1023 UCONN Advanced Placement United States History—AP Level  11  1.0 CR

Prerequisite: An “A” or “B” in AP World History or an “A” in Modern World History Honors level or written recommendation of the instructor

This course is an intensive chronological examination of United States History. The course surveys the political, economic, and cultural life of the nation from early European exploration to the 21st century. The first semester focuses on the origins of the United States through the Age of Imperialism. The second semester completes the survey to present day and prepares students to take the AP Exam in May. Students are required to take the AP Exam and pay the fee for this exam. Students who elect for UConn credit must pay a fee and

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complete UConn requirements. Fee waivers for the AP exam and UConn ECE are available to students who participate in the free/reduced price lunch program.

SS2013 UCONN American Studies—Honors  
11 1.0 CR
Prerequisite: Grade 9 & 10 Social Studies
Corequisite EN2013, Block code SS20B3
This course is offered in conjunction with the University of Connecticut’s Early College Experience program. Students study American History and Literature. The course also places a heavy emphasis on American cultural studies, such as art, architecture and music. The student earns a credit which fulfill the U.S. History requirement as well as a credit for one year of English coursework. Students who elect for UConn credit must pay a fee and complete UConn requirements. See your Guidance Counselor for specific program requirements. Fee waivers for UConn ECE are available to students who participate in the free/reduced price lunch program.

SS2023 Modern US History - Honors  
SS3023 Modern US History—College Prep  
11 1.0 CR
Prerequisite: Grade 9 & 10 Social Studies
The goal of this course is an in-depth analysis of key events, people and issues in late nineteenth and twentieth century United States History, with special emphasis on key themes, concepts, and skills. The course is arranged chronologically and begins with the United States centennial of 1876. The first semester examines American politics, culture, foreign policy and economics. The second semester follows the United States through the Great Depression of the 1930s until present day.

12th Grade

Students must take ONE of the following four courses

SS9104 Participation in American Society—Unleveled  
1S/2S 12 .50 CR
The goal of this course is to get students actively involved in the world around them and convince them of the importance of being an active and contributing member of American society. The emphasis is on participation which might include simulations, case studies, position papers, mock trials and debates, interviews, polls, field trips, guest speakers, community service, and shadow experiences. Students in this class will be given the opportunity to complete the Service Learning requirement.

SS8124 Law and Order—Multi-Level  
1S/2S 12 .50 CR
Prerequisite: Grade 11 Social Studies
This course is designed to teach the Criminal Justice System as it relates to the average citizen. It is team-taught at the police station with a police officer (MPD educational coordinator). The course includes field trips to Hartford Superior Court and State of Connecticut correctional facilities. The class includes numerous “practical” field tests for students. Students in this class will be given the opportunity to complete the Service Learning requirement. Students may elect to receive honors level credit for this course. In addition to the regular curriculum, honors level students will fulfill an additional set of requirements each quarter. This option is available by arrangement with the instructor.

***To be eligible for enrollment and to maintain enrollment in the course, each student must pass a background check by the Manchester Police Department. In addition, a background check will be done by the Department of Corrections, which may prevent the student from participating in a field trip. Further, it is expected that your child will abide by the laws set forth in the Connecticut General Statutes. If there are any violations of said laws during the semester, your child may be removed from the course.

SS1024 Advanced Placement United States Government and Politics—AP Level  
12 1.0 CR
Prerequisite: Successful completion of AP US History or American Studies
This is an intensive introduction to US Government and Politics. The six topics of the course are Constitutional Underpinnings of United States Government; Political Beliefs and Political Behaviors; Political Parties, Interest Groups, Institutions of the United States Government and Mass Media. The course provides students with practice in analyzing and interpreting data and other information relevant to U.S. government and politics. Students will focus on supplemental readings, including primary source materials and contemporary news analyses that strengthen student understanding of the curriculum. The course requires students to answer analytical and interpretive free response questions on a frequent basis to prepare for the test. Students are required to take the AP exam and pay the fee for this exam. Fee waivers are available for eligible students. Students in this class will be given the opportunity to complete the Service Learning requirement.
**SS8314 Law in American Society—Multi-Level**  
1S/2S 12 .50 CR

*Prerequisite: Grade 11 Social Studies*

This is a course for students interested in all aspects of law. Units deal with constitutional law, housing law, domestic situations, consumer protection, and civil law. Legal research, case readings, field trips to court, guest speakers, and mock trials are utilized to give the student a better view of the complexity of the justice system. Students in this class will be given the opportunity to complete the Service Learning requirement.

**Students are required to take one of the following two courses in their junior or senior year:**

**SS3254 Human Rights—College Prep**  
1S/2S 11-12 .50 CR

The purpose of this course is to prepare students for the benefits and challenges of living in an emerging global society. This course will focus around human rights as a central theme and tenet, and help students to think about the omnipresent question “What are my rights and responsibilities as a global citizen?”

**SS2254 UConn Human Rights—Honors**  
1S/2S 11-12 .50 CR

The purpose of this course is to prepare students for the benefits and challenges of living in an emerging global society. This course will focus around human rights as a central theme and tenet, and help students to think about the omnipresent question “What are my rights and responsibilities as a global citizen?” The opportunity for UCONN credit is available through the UCONN ECE program. **Students who elect for UConn credit must pay a fee and complete UConn requirements.**

**Social Studies Electives**

**SS1014 Advanced Placement European History—AP Level**  
12 1.0 CR

*Prerequisite: Grade 11 Social Studies or teacher recommendation*

This is a year long course. This course is an intensive chronological examination of Modern European History from early modern times to the present. The course surveys the political, economic, cultural and social life of Europe from the start of the Northern Renaissance around 1450 to the 1990's. The first semester focuses on the origins of modern Europe from the discovery of the New World to the Napoleonic era. The second semester completes the survey through the 1990's and prepares the students for the AP exam in May. Students will complete extensive reading in both primary and secondary sources as well as numerous written assignments. **Students are required to take the AP exam and pay the fee for this exam. Fee waivers are available for eligible students.**

**SS1134 AP Microeconomics—AP Level**  
1S/2S 11/12 .5 CR

This is a one-semester course that explores how people and businesses make decisions for dividing, sharing, and assigning resources. In this course, students will learn how product and factor markets work, how income is distributed, what happens when markets fail, and the role of government in the economy. Students will explore the moral implications of economic decisions of public policy and business decisions and how these choices impact consumers. Students will learn these concepts and principles by focusing on local businesses and exploring the impact of business decisions on groups that have faced barriers to entrepreneurship such as people of color and women. Additionally, students will examine businesses that have been traditionally overlooked and how current trends have created a more inclusive business landscape. Students learn to use graphs, charts, and use data to analyze, describe, and explain economic concepts. Also, students have the opportunity to choose topics based on interest. The goal of the course is for students to understand microeconomics, how it impacts them, and how they can make a difference in society. This course is perfect for students who are interested in careers including, law, risk management, actuarial science, finance, foreign affairs, public administration, politics, policy analysis, health administration, entrepreneurship, market analysis, journalism. **This class is open to juniors and seniors. The best candidates for this course are honors and AP level students, as well as CP students with strong academic records. Students are required to take the AP exam and pay the fee for this exam. Fee waivers are available for eligible students.**

**SS1004 Advanced Placement Psychology—AP Level**  
12 1.0 CR

*Prerequisite: Grade 11 Social Studies or teacher recommendation*

This is a year long course. Students in this course will explore various theories of psychology, as well as physiological and scientific aspects of psychological development. Students in this course will be expected to do substantial independent research on topics in psychology. Students are required to take the AP exam and pay the fee for this exam. Fee waivers are available for eligible students. To enroll in this course, a student must have a recommendation from either his/her eleventh grade social studies teacher.
SS8104 Psychology—Multi-Level  
1S/2S  11/12 .50 CR  
Psychology is the study of human behavior. Students selecting this course will learn more about themselves by exposure to topics such as Stress Management and Attitude Formation, Normal vs. Abnormal Behavior, Altered States of Consciousness, Human Sexuality and Personality Development Theory. Good reading, listening and writing skills are needed. Students electing psychology at the honors level will also do extensive research in a specific area of psychology chosen by the student and the instructor. Grade 10 EPSA students may take this course.

SS8106 Sociology—Multi-Level  
1S/2S  11/12 .50 CR  
Sociology is the scientific study of the patterns of human group life. This class looks at patterns of human behavior by studying the membership groups people belong to. The class will examine concepts in sociology such as norms, values, status, ranking and roles. The class will also explore the societal problems of crime, aging, environment, urbanization, and terrorism from the perspective of a sociologist. Students will read and write on assigned topics. The class will also help the student master technology and problem solving skills. Grade 10 EPSA students may take this course.

SS8134 Economics—Multi-Level  
1S/2S  11/12 .50 CR  
Economics is more than the study of money. This one semester course examines the social science of economics from three directions. The course begins with an introduction to the basic concepts of the American economic system. The emphasis then shifts to examine the role of business in the economy. The last section of the course deals with the consumer and their role in the economy. Students will explore topics such as supply and demand, inflation and unemployment, labor and unions, stocks and investments that will lead them to effective decision-making and responsible citizenship. Students will experience a variety of teaching methods and be exposed to a number of guest speakers.

SS8107 African-American History—Multi-Level  
1S/2S  11/12 .50 CR  
This is a one semester survey of Africans in America from their arrival as slaves in Virginia to modern times. The course takes a detailed and comprehensive study of the historical, social, political, and cultural development of African-Americans. Special emphasis is placed on the origins and nature of slavery, Reconstruction and the Era of Jim Crow, the Harlem Renaissance, and the struggle for Civil Rights. Students also make connections to the modern day struggle for equality, freedom, and dignity of African Americans in the contemporary world. This class is offered at the Multi-level which means students arrange with the instructor the level of work they will attempt.

SS2154 UCONN Latin American Studies—Honors  
1S/2S  12 .50 CR  
This is a one semester course that offers students the opportunity to earn 3 semester hours of credit from the University of Connecticut through the UConn ECE program. It examines the contributions of the many cultural/racial groups of the Americas, with specific reference to Latin Americans in the United States. Students will examine and use primary and secondary sources to critically evaluate the historical development of Latin America, and judge the impact in both the past and the future. Students will also examine the culture of the area through a study of literature, art, architecture, music and other folkways. Students will be expected to apply prior knowledge, critical thinking skills, and imagination to explore issues both past and present in Latin America.

SS2114 UCONN American Maritime Studies—Honors—UCONN MAST 1200  
1S  12 .50 CR  
American Maritime Culture is a semester course that gives the student an opportunity to earn 3 semester hours of credit from the University of Connecticut. Students will be expected to read, write and conduct research at the college level during the course of the semester. This course explores the ways that America’s relationship with the sea created opportunities for the creation of a multicultural and multinational seafaring society. Students will discuss the extent to which this seafaring society allowed participants to escape the potential harms of repressive social institutions of the land. The history, literature, and art of the sea feature prominently in student exploration of the lasting impacts of maritime history on our modern world. Students who elect for UConn credit must pay a fee and complete UConn requirements. Fee waivers are available to students, see your Guidance Counselor for program requirements

SS8506 Criminology—Multi-Level  
1S/2S  10-12 .50 CR  
This course is an introduction to the fundamental principles of criminal behavior. Students explore the nature, existence and causation of crime. Concepts of deviance and justice will be examined as it relates to cross-cultural perspectives. Students in the Education and Public Service Academy have priority.

SS1007 Advanced Placement Art History—AP Level  
11-12 1 CR  
AP Art History will teach students to learn how to critically analyze works of art within diverse historical and cultural contexts, considering issues such as politics, religion, patronage, gender, and ethnicity. Students will explore major forms of artistic expression, including architecture, sculpture, painting and other media from across a variety of cultures. They will learn about the purpose and function of art as they develop the ability to articulate visual and art historical concepts in verbal and written form.
SS2163 UCONN Conflict & Peace Studies—Honors

1S/2S 11-12 .50 CR

Prerequisite: Successful completion of 10th Grade World History. Suggested: Students who have previously completed Human Rights.

This course is an elective course open to juniors and seniors that will run as a pilot during the 2021-2022 school year. This course challenges students to examine the compelling reasons why people are motivated to engage in either conflict or peace. Through this class, students will examine the psychology and sociology behind violence and peace, international law on conflict prevention, and the motivating reasons behind conflict. Students will examine both historical and modern examples of genocide and the factors as to why genocide occurs. This course will focus on other forms of conflict, including racial, cultural and social conflict. Students will be able to examine their own roles and behavior, and engage in learning activities on how peace education, activism, and forms of healing & reconciliation can repair human harm. Students who elect for UConn credit (HRTS 2200) must pay a fee and complete UConn requirements. Fee waivers are available.

SS2137 Education In A Multicultural Society—Honors

1S/2S 10-12 .50 CR

Education In A Multicultural Society is an introductory course focused on the evolving purposes and roles of education and teachers in American society, issues of diversity and equity in education, and the societal and cultural factors, key policies, and court cases that have shaped education in the U.S. Students may be eligible to apply for CCSU credit. EPSA students have priority in enrollment.

SS8108 Puerto Rican/Latino Studies

1S/2S 10-12 .50 CR

Students will consider the scope of Puerto Rican/Latino contributions to U.S. history, society, economy, and culture. It utilizes an inquiry-based approach to deliver a content rich and personalized learning experience. The course is an opportunity for students to explore accomplishments, struggles, intersections, perspectives, and collaborations of Puerto Rican/Latino people in the U.S. Students will examine how historical movements, legislation, and wars affected the citizenship rights of these groups and how they worked to build U.S. cultural and economic wealth and create more just societies in local, national, and international contexts. This course will contribute to the critical consciousness and civic-mindedness competencies of a twenty-first century graduate.

SS8306 Modern American Music and Film—Multi-Level

1S/2S 12 .50 CR

Using music and film, this course will explore various cultural trends and changes that have taken place in America since 1900. Students will view films and listen to music from the early 1900’s up to present day. Students will gain an appreciation of American culture as well as explore the vast diversity of these two forms of American culture. Music to be studied will include jazz, the blues, folk, grunge and rap. Films will include “classics” from each decade as well as modern day trends. Students need to be intelligent watchers of film and intelligent listeners of music. Interdisciplinary projects and presentations are required. This course is not approved by the NCAA as a core course.

Truth Seminars

These courses are open to students in the Truth Academy. The purpose of the Truth Seminars is to provide a space for the explorations of Truth, in all its forms, across disciplines, cultures, time, and ideology. The questions that frame the courses are “What is true?” and “How can truth be known?” These questions are then explored via philosophical and disciplinary frameworks as we explore various “truthy” ideas in the world such as conspiracies, faith, ethics, media and arguments. The capstone project of the Truth Academy and the Truth Seminars is the production of a TEDx conference each Spring at Manchester High School. Greater detail about the Truth Strand and Seminars is available at www.truthacademymhs.com.

SS3556 Introduction to Truth—College Prep

1S/2S 10-12 .50 CR

This class challenges students to answer the questions “What is true?” and “How can truth be known?” Students will read and discuss philosophical and disciplining frameworks that shape our world.

SS3556 Seminar in Truth—College Prep

1S/2S 10-12 .50 CR

This class will explore different content each semester using the frameworks from the Introduction to Truth class. Topics include “Persuasion”, “Power”, “Media”, and “Ethics.” The class covers current topical issues from across the globe through the “truth frameworks.”
TECHNOLOGY EDUCATION

Technology courses provide students with experiences in the application of technology, an appreciation of the impacts of technology on our society, and the opportunities technology provides. The program develops technological skills and provides opportunities for career exploration within technological fields. Students participate in exciting, hands-on activities while achieving these goals.

Program Features:

- **Career Pathways Programs**: Students receive Manchester Community College credit for courses taken at MHS. See diagram page.
- **Communications Technology**: Classes produce printed and silk-screened products for the community. Broadcast focus in video, sports, and radio.
- **Architecture**: Classes have designed houses for Habitat for Humanity, and their architectural drawings have been used in planning renovation projects at MHS.
- **Tools and Materials**: Classes have built and installed cabinets and computer desks at MHS.
- **Automotive Technology**: Students have designed and built alternative energy vehicles and raced them in statewide competition.
- **Construction**: Classes build a scale model house, learn how to read blueprints or help build a full size storage shed using the latest tools and construction techniques.
- **Robotics**: Students build real robots and test them in various challenges.
- **Explorations in STEM**: Students explore transportation, manufacturing, construction and communication technologies and use technology to design, create and share new ideas.
- **Engineering Design**: Classes solve community based problems by using the Engineering Design Process. Students will learn to use basic CAD programs, 3D Printers, and other manufacturing tools to design, build prototypes, test, and evaluate their solutions to problems found in the community.
- **Radio Broadcasting**: Students create projects for podcasting.

*In Technology Education courses, students learn many real world skills, such as:*

<table>
<thead>
<tr>
<th>Program a robot</th>
<th>Design an electronic product</th>
<th>Design a robotic vehicle</th>
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<tbody>
<tr>
<td>Create a CADD model</td>
<td>Design business cards</td>
<td>Use a digital camera</td>
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<tr>
<td>Design a house</td>
<td>Make a circuit board</td>
<td>Build a bookcase</td>
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<tr>
<td>Weld metal</td>
<td>Operate a CNC milling machine</td>
<td>Learn Physics</td>
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<td>Write a computer program</td>
<td>Build a rocket</td>
<td>Measure voltage</td>
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<td>Cut, drill and saw wood</td>
<td>Silk screen a shirt</td>
<td>Build a model house</td>
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<td>Build a model plane</td>
<td>Solder electronic parts</td>
<td>Build an amplifier</td>
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<td>Use an oscilloscope</td>
<td>Design an electronic car</td>
<td>Balance a tire</td>
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<td>Produce a TV program</td>
<td>Make a blueprint</td>
<td>Read a blueprint</td>
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<td>Write a news article</td>
<td>Use a computer</td>
<td>Design a website</td>
</tr>
<tr>
<td>Create a Podcast</td>
<td>Design an app</td>
<td>Design, build and race an electric car</td>
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Multi-level courses allow students to elect the level (honors, college prep, post-secondary prep) on which to be evaluated early in the course.

The Technology Education Department offers the following courses:

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Grades</th>
<th>Description</th>
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<tr>
<td><strong>Introduction to Technology</strong></td>
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<td>Explorations in STEM</td>
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<td>Tools and Materials</td>
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<td>Engineering &amp; Design</td>
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<td>Robotics</td>
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<td>Engineering &amp; Design</td>
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<td>Engineering Drawing Interpretations</td>
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<td>Computer Aided Design &amp; Drafting</td>
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<td>Computer Programming &amp; Game Design</td>
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<td>AP Computer Science A</td>
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<td>Mobile App Design</td>
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<td>Electronics Technology</td>
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<td>Construction Technology</td>
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<td>Architecture</td>
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<td>Manufacturing Technology</td>
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<td>Safety in the Workplace</td>
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<td>Manufacturing Math</td>
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<td>Conventional Manufacturing Process Lab</td>
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<td>Measurement for Manufacturing</td>
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<td>Communication Technology</td>
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<td>Communication Workshop</td>
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<td>Photography</td>
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<td>Video Production</td>
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<td>Sports Broadcasting</td>
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<td>Radio Broadcasting</td>
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<td>Broadcast Journalism</td>
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<td>Studio Production</td>
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<td>Transportation Systems</td>
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<td>Automotive Technology</td>
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<td>Aviation and Aerospace</td>
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**Technology Education Courses**

**INTRODUCTION TO TECHNOLOGY**

**TI8105 Explorations in STEM—Multi-Level**  
1S/2S 9-12 .50 CR  
Students will complete a variety of projects while using computer software programs and workshop tools/equipment to discover concepts of communication, construction, transportation, manufacturing, design, and engineering. Class activities include Internet Research, Basic understanding of the Computer, Bridge Design, Architecture, Laser Manufacturing, Magnetic Levitation, Robotics and more.

**TI8115 Using Tools and Materials 1—Multi-Level**  
1S 9-12 .50 CR  
**TI8215 Using Tools and Materials 1—Multi-Level**  
2S 9-12 .50 CR  
This course is designed to acquaint students with the hand and machine tools and techniques of working with various materials, including wood. Students learn to design, build, and finish various types of products. Emphasis is placed on safety, design, and quality.

**TI8126 Using Tools and Materials 2—Multi-Level**  
1S 10-12 .50 CR  
**TI8225 Using Tools and Materials 2—Multi-Level**  
2S 9-12 .50 CR  
Sequential: Tools and Materials 1  
This course is a continuation of Using Tools and Materials. Students will continue to use hand and machine tools in more advanced projects and techniques of working with various materials. Emphasis is placed on design and execution. Students wishing to further their experiences in this subject should register for the appropriate Seminar in Technology Education. This course may be repeated for credit.

**COMMUNICATIONS TECHNOLOGY**

**TC8135 Communication Workshop—Multi-Level**  
1S/2S 9-12 .50 CR  
This multi-level course is recommended for students interested in exploring the areas of communication technology. Students are introduced to computer graphic design, website design, desktop publishing, photography and video production. There is an emphasis on authentic project-based learning, and student work will be published on school websites, yearbook, and elsewhere. This course is recommended as a starting point, to be taken prior to Photography, Radio Broadcasting, Video Production, or Desktop Publishing courses.

**TC8515 Video Production—Multi-Level**  
1S 9-12 .50 CR  
**TC8615 Video Production—Multi-Level**  
2S 9-12 .50 CR
This is a gateway course for Broadcast Journalism, Studio Production, and Sports Broadcasting. This course introduces students to basic video field production. This course is a project driven class. Students will work in small groups and individually on teacher-approved segments (projects) throughout the course of the semester. Students will write and tell a story through the use of industry standard editing programs and field production equipment. Scripts and storyboards are created for a multitude of projects.

**TC8315 Studio Production**  
1S 10-12 .50 CR

**TC8815 Studio Production**  
2S 9-12 .50 CR

**Sequential: Video Production**

This course is designed to give students hands-on experience operating a television studio. Students will be taught how to direct, mix audio, operate a camera, and many other skills to produce studio productions. Production time after school is necessary to record events for class projects.

**TC8126 Graphic Design and Publishing—Multi-Level**  
1S/2S 10-12 .50 CR

**TC3245 Sports Broadcasting—College Prep**  
1S/2S 9-12 .50 CR

**Sequential: Video Production**

This course allows students to advance their skills in computer graphic design. Students learn In-Design and Photoshop and apply these industry standards in a challenging business like setting. Students design and print jobs for clients in the MHS Community. Project examples include t-shirts, posters, business cards, newsletters, commercials, signs and any products your clients may need. This course is a prerequisite for Yearbook.

**TC2016 Broadcast Journalism—Multi Level**  
10-12 1.0 CR

**Sequential: Video Production**

This course allows students to plan, shoot, and edit their own news stories, take on roles in the studio as camera operator, script writer, director, sound engineer, graphic designer, editor, lighting technician, and anchor for Manchester High School’s Television News Program. This course will require studio/field reporting work after school in the community. **Production time after school is necessary to record events for class projects.**

**TC8125 Radio Broadcasting—Multi-Level**  
1S/2S 9-12 .50 CR

This course will introduce students to the fundamentals of radio and sound production. Students will explore audio production, multi-track recording techniques, microphone selection and their placement. Students will work with audio recording equipment, studio interaction, and radio program planning. Students will analyze equalization, compression, reverb, and planning. A focus will include acoustics and music theory. Class projects will focus on producing audio and music distribution, radio broadcasting, podcasting, and sound effects for film.

**TC8146 Photography—Multi-Level**  
1S/2S 10-12 .50 CR

This is an introductory course in amateur photography. Students plan, shoot and use a computer to manipulate and enhance the quality of the pictures they take. Students are instructed in the correct use of a digital camera, advanced functions and features of digital cameras, photo composition techniques, digital photo retouching and image merging using Photoshop software. Students are expected to work independently after school with their camera. This course is a prerequisite for photo seminar and the yearbook photography seminar. 9th graders interested in photography should be encouraged to take Communications Technology.

**TC8057 Yearbook—Multi-Level**  
9-12 1.0 CR

This course is designed to produce the high school yearbook SOMANHIS and an end of the year supplement. This course integrates a number of skills such as marketing, business, finance, technology, writing, photography, management, and all activities related to publishing a yearbook. Students will have a variety of experiences in writing, layout, marketing, photography and collaboration and should expect to work on a variety of projects and topics throughout the year. Students in all grades are welcome.

**CONSTRUCTION TECHNOLOGY**
TN8516 Construction Technology 1—Multi-Level 1S/2S  9-12  .50 CR
This course provides the student with an overview of structures such as walls, trusses, beams, towers, dams, bridges, and the forces acting upon them. Various materials that are used in the construction process are studied. Destructive testing will be employed to verify structural design and assembly of models. Students will expand their working knowledge of basic math. Students will improve skills such as reading a ruler, using fractions and applying simple geometric concepts, and work with construction specific power tools.

TN8425 Construction Technology 2—Multi-Level 1S/2S  10-12  .50 CR
Sequential: Construction Technology 1 (grade C– or better)
This course deals with the various components of the U.S. infrastructure, including houses, bridges, highway systems, buildings etc. Emphasis is placed upon light construction, residential building, creating and reading blueprints and shed construction. Students enrolling in Construction 2 are expected to be proficient in basic math. They should be able to read a ruler, use fractions and have an understanding of geometry. Students may select one component of the infrastructure and build a scale model based upon individual research. Students wishing to further their experience in Construction should register for Construction Seminar, provided they received a grade of C- or better in Construction 2.

TN8315 Architecture 1—Multi-Level 1S/2S  9-12  .50 CR
This course provides a working knowledge of the fundamental concepts of architectural drafting and introduces students to using computers to create construction documents. This focus is learning to create scaled and dimensioned floor plans, elevation views, and photo-realistic 3D renderings. Students will complete a variety of projects that require them to visualize how space can best be used and develop solutions within specific guidelines. Architectural projects focus on residential construction.

TN8426 Architecture 2—Multi-Level 1S/2S  9-12  .50 CR
Sequential: Architecture 1
This course builds upon the experience in Architecture 1. Students will address the more advanced concepts of design, structural efficiency, and aesthetics. Focus will be placed on presenting design ideas, specifying building materials and components and incorporating schedules and detail drawings into the design process. These concepts will be incorporated into student constructed scale models and CAD drawings. Students wishing to further their experiences in this subject should register for the appropriate Seminar in Technology Education.

MANUFACTURING TECHNOLOGY

TD9326 Safety in the Workplace—Multi-Level 10-12  .25CR
This course provides an introduction to the safety and health issues encountered in a manufacturing environment. This course introduces students to the concepts of personal and work environment safety requirements of manufacturers as well as the governmental oversight agencies such as OSHA.

TD3507 Manufacturing Math 1S/2S  10-12  .50 CR
Prerequisite: Algebra 1
This course is a foundation module in manufacturing math. Topics include general arithmetic processes, linear measurement, fundamentals of algebra and plane geometry, trigonometry, and CNC. Concepts are supported by industry-related examples and industrial applications with an analytical approach to problem solving necessary in actual practice in translating engineering drawing dimensions to machine working dimensions.

TD8307 Conventional Manufacturing Processes Lab—Unleveled 1S/2S  11-12  .50CR
Prerequisite: Safety in the Workplace
Provides theoretical concepts and develops the knowledge and “hands-on” skills in the conventional lathe and milling manufacturing processes. The lab portion introduces common metal cutting tools, lathe and milling machine set-ups and machine operation. In addition, the lab includes the associated use of measuring tools and instruments used in the inspection of class required projects. Students enrolled in the appropriate MCC College Career Pathways Program who take this class in their sophomore, junior, or senior year may be eligible to receive 3 MCC credits.

TD8316 Measurement for Manufacturing—Unleveled 1S/2S  10-12  .50 CR
This course provides students with the basics in measurement for manufacturing, incorporating an introduction to the construction and usage of inspection tools, as well as a comprehensive set of hands-on exercises. These tools will be utilized to discover the dimensional characteristics of a variety of sample parts.
Prerequisite: Algebra I

9-12 .50 CR

screwdriver, tire iron, hard hat and crane hook.

CADD

This course will prepare for a paid placement involving at least 72 hours of paid work experience at a local manufacturing site. Students will use the same competency-based learning that is used in over half of the Fortune 500® manufacturing companies nationwide, and complete “Tooling U” instructional modules, a program aligned to nationally recognized industry credentials, as well as to the Department of Labor (DOL) Advanced Manufacturing Curriculum Model. Students will be exposed to CNC machinery that local manufacturers have recommended will be useful in a job setting and will prepare for paid pre-apprenticeship positions. Placement meetings will be held and parents/guardians will attend hiring meetings with the employer, school staff and the Department of Labor.

ENGINEERING & DESIGN

TE8116 Electronics Technology 1—Multi-Level 1S/2S 10-12 .50 CR

This course is designed for students who plan to pursue engineering or other technical careers. Students are introduced to the basic concepts of household wiring, electricity/electronics and their applications. The course features hands on lab work which employs electronic test equipment in the building and testing of experimental circuits. Students will apply basic assembly skills in producing a variety of circuits.

TE8236 Electronics Technology 2—Multi-Level 1S/2S 9-12 .50 CR

Sequential: Electronics Technology 1

This course covers semiconductors for digital circuits, digital logic circuits and digital integrated circuits; introduces Boolean Algebra, flip-flops and registers, sequential logic circuits and combinational logic circuits. Students learn how digital circuits are used in semiconductor memories. Some AC wiring and switching is covered as well as some basic computer maintenance and networking topics. Students wishing to further their experiences in this subject should register for the appropriate Seminar in Technology Education.

TD8106 Robotics—Multi-Level

Recommended for students interested in robotics, engineering, or other technical careers. This course provides an introduction to the basics of robotics structure and control. Students will construct several different robots for different scenarios. Students will experience hands-on building, personal driving, and software programming of the robot. Students wishing to further their experiences in this subject should register for the Robotics Seminar course or participate in the award winning MHS Robotics Team.

TD8306 Engineering Drawing Interpretations—Unleveled 1S/2S 10-12 .50CR

An introduction to the interpretation of engineering drawings beginning with the basics of orthographic projection. Topics include: working drawings, lines, linear and angular dimensioning, sectional views, tolerances and allowances, thread representation, arrowless and tabular dimensioning, steel specifications, auxiliary views, point-to-point and datum dimensioning conforming to ANSI Y14.5M and ISO standards. Students enrolled in the appropriate MCC College Pathways Program who take this class in their sophomore, junior, or senior year may be eligible to receive 3 MCC credits

TD8115 MCC—Computer Aided Design and Drafting 1—Multi-Level 1S/2S 10-12 .50 CR

An introduction to the techniques of generating graphic images with computers using AutoCAD(R). Topics include: overview of CAD technology, computer technology, hardware descriptions and requirements, file manipulation and management, two-dimensional geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies. Students enrolled in the appropriate MCC College Pathways Program who take this class in their sophomore, junior, or senior year may be eligible to receive 3 MCC credits

TD8215 Computer Aided Design and Drafting 2—Multi-Level 1S/2S 10-12 .50 CR

Sequential: Computer-aided Drafting and Design 1

This is a continuation of Computer Aided Design and Drafting 1, providing additional skills in problem solving using CADD software. CADD 2 increases skills with multi-bodied solids, sweeps, lofts, surfaces and material analysis. Sample projects include an offset screwdriver, tire iron, hard hat and crane hook.

BU8185 Computer Programming I—Multi-Level.

Prerequisite: Algebra I

9-12 .50 CR
This course is designed to teach the fundamentals of object-oriented programming using current object-oriented programming languages. Emphasis is placed on designing and creating well-structured programs using the programming process. Students will learn vocabulary, code syntax, and programming logic as they design and code programs.

**TD3101 Computer Programming and Game Design—College Prep**  
Sequential: Computer Programming I or approval of Department Chair  
1S/2S 10-12 .50 CR

This course is designed to further the study of computer science and game design theory. The course incorporates theory, language, and the architecture of game design into the challenge of dealing with the complete design and programming of a computer game. Emphasis on game structure, function, and software design and programming will be stressed by using CodeHS.

**TD1006 AP Computer Science A —AP Level**  
Prerequisite: Students must currently be enrolled in or have previously taken Algebra 2

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. Because the Java programming language is extensive, with far more features than could be covered in a single introductory course, the AP Computer Science A Exam covers a subset of Java. **Students enrolling in this course must take the AP Computer Science A exam and pay the fee. Fee waivers are available for eligible students.**

**TD8126 Engineering Design—Multi-Level**  
1S/2S 9-12 .50 CR

Students will learn to use the Engineering Design Process to design solutions to various community problems. These projects will allow students to learn how to use 3D Printers, Laser engraver/cutters, CNC routers, and CAD programs. Students will have hands-on experience in designing, building, and testing prototypes to solve problems in the community. Through this they will build an understanding of Engineering Design, critical thinking, and problem solving.

**TD8136 Mobile App Design—Multi-Level**  
1S/2S 10-12 .50 CR

Students in this course will learn computer science topics by building socially useful Android-based mobile apps. In addition to programming and computer science principles, this project based course emphasizes writing, communication, collaboration and creativity.

**TRANSPORTATION TECHNOLOGY**

**TT8105 Aviation & Aerospace—Multi-Level**  
1S/2S 9-12 .50 CR

Aviation and Aerospace provides an introduction and overview of flight technologies. Students will study the parts of an airplane, power for flight, and rocket technology. Proper quadcopter operation and FAA rules will be explored. The principles of flight will be examined and applied using scaled gliders, powered aircraft, and rockets. Satellites, space travel, and aerospace careers will also be explored. Students will exhibit their piloting skills using a radio controlled flight simulator program. Students wishing to further their experiences in this subject should register for the Aviation and Aerospace Seminar in Technology Education.

**TT8106 Automotive Technology 1—Multi-Level**  
1S/2S 10-12 .50 CR

This is a basic, introductory class in small gasoline engines and automotive technology including the fundamentals of automobile and small engine operation, maintenance and repair. Emphasis is placed on safety in the lab and workplace, as well as the safe and proper use of tools and equipment. Automobile and small engines are studied as a transportation system, with emphasis placed on user level preventative and scheduled maintenance. Students will actively participate in basic and routine maintenance procedures in an automotive workshop setting.

**TT8216 Automotive Technology 2—Multi-Level**  
1S/2S 11-12 .50 CR

Sequential: Automotive Technology 1

This advanced course will expose students to the automotive industry and raise awareness of and increase exposure to career opportunities within the automotive industry. Students will develop entry level job skills as recommended by local business partners with an increased emphasis on safe work habits and proper use of tools and equipment in the workshop. Activities include the
diagnosis, inspection, service, and repair of automotive systems. Prescriptive instruction covers brakes, suspension and steering, engine performance and electricity/electronics. Students may repeat this class for credit with an individualized focus on career development and experiential learning opportunities in the industry.

World Languages

The vision of the World Language Department is to prepare students to be globally competent and culturally empathetic individuals with strong interpersonal communication skills in at least one of our target languages. We offer courses in Spanish, French, Latin, Italian and Chinese. In all levels of our language courses, we believe that the target language should be both the content and vehicle of instruction. Our themed curriculum is challenging and tailored to the interests and needs of our MHS students. This provides students with authentic, real-world learning experiences that are relevant to both their personal and professional goals beyond high school.

In this department courses primarily emphasize these capacities from our Vision of a Graduate:

- Communication through our ACTFL standards we emphasize written and verbal communication proficiency in the target language. We expect learners to communicate with a variety of audiences on a variety of real-world themed topics.
- Global and Cultural Competence through our ACTFL standards we expect learners to use the target language to investigate, explain and reflect on the products, perspectives and communities of the target culture and beyond.

Co-Curricular Opportunities

- World Language teachers and the culinary arts teachers often plan opportunities for students to experience preparing and tasting cultural foods.
- The MCA and GSA academies have sections of Spanish courses taught primarily for students of the academy, allowing teachers to tailor some lessons and experiences to the students’ interests within the academy.

Community Based Learning and School Based Enterprises

- Our WL teachers and travel clubs host international travel experiences offered through professional tour agencies to Spain, France and Italy. Students are able to put their language skills into action and experience the target culture first hand. Trips are typically one week long and occur over April break.
- We offer a World Language Club that is open to all World Language students interested in planning cultural events, doing community service and promoting diversity.

Departmental Highlight

The CT State Seal of Biliteracy: Our department is proud to offer the opportunity for students to earn the Seal of Biliteracy. Affixed on the high school diploma and transcript, the seal provides immediate recognition of a student’s language and communication skills. It recognizes students who have studied and attained proficiency in English and one or more other languages by high school graduation. We believe that the Seal of Biliteracy encourages students to continue to study and value other languages and cultures. The Seal provides employers and universities with a method of identifying high school graduates with biliteracy skills. All students are eligible to receive the Seal of Biliteracy based on evidence of achieving the designated level of proficiency in two or more languages by high school graduation. In the World Language Department, this is typically demonstrated through a standardized assessment given to students who successfully complete four or more years of one or more of our languages offered. MHS also offers other opportunities for native speakers of languages other than English to earn the Seal of Biliteracy.

Sequential Policy

In order for a student to remain at the same level in the following year of world language study, the student must pass the class and achieve a second semester average of C– or better.
**Requirement**
In order to graduate from MHS, students must successfully earn 1 credit in World Languages. However, most 4-year colleges require a two-to-three year sequence of study in a world language.

**Current full year course offerings:**

<table>
<thead>
<tr>
<th>Chinese 1, 2, 3, 4, 5/ECE</th>
<th>Latin 1, 2, 3, 4</th>
<th>French 1, 2, 3, 4</th>
<th>Italian 1, 2, 3, 4</th>
<th>Spanish 1, 2, 3, 4, 5, AP/ECE</th>
</tr>
</thead>
</table>

**World Language Courses**

**CHINESE**

**FM2015 Chinese 1—Honors**
9-12 1.0 CR
Welcome to your journey of exploring China! In this course, you will learn how to pronounce and write Chinese characters. The study of China’s culture will be interwoven in all aspects of the class.

**FM2016 Chinese 2—Honors**
9-12 1.0 CR
Your journey of China continues this year with expanding on the pronunciation and writing of Chinese characters. In addition, we will delve deeper into China’s culture and its impact on the world.

**FM2017 Chinese 3—Honors**
10-12 1.0 CR
In Chinese 3, we will continue our adventure into Chinese customs and expand our knowledge about culture. With the accumulation of both spoken and written language, we will perform some traditional Chinese stories and skits.

**FM2018 Chinese 4—Honors**
11-12 1.0 CR
In Chinese 4, we will continue our adventure into Chinese customs and expand our knowledge about culture. With the accumulation of both spoken and written language, we will perform some traditional Chinese stories and skits.

**FM2054 Chinese 5—Honors / UConn ECE**
12 1.0 CR
In Chinese 5, students will continue exploring Chinese customs and culture. Students will also advance in writing, listening and speaking the language. Students will analyze authentic materials. Students taking this course at the ECE level will use Chinese to communicate on a variety of topics in a variety of ways. Students taking this course may earn three UConn credits for a grade of C or higher. This is equivalent to Chinese 1114 at UCONN.

**FRENCH**

**FF2015 French 1—Honors**
9-12 1.0 CR
FF3015 French 1—College Prep
For first year French classes, emphasis is placed on the communication skills of listening and speaking. Students gain basic skills in reading and writing. Culture is an integral part and present throughout the entire course.

**FF2025 French 2—Honors**
10-12 1.0 CR
FF3025 French 2—College Prep
Sequential: French 1
French 2 reinforces and builds on the listening, speaking, reading, and writing skills which were developed in French 1. Oral practice and culture are an integral part of the class.
French 3 reinforces and builds on the listening, speaking, reading, and writing skills which were developed in French 1 and 2. Oral practice and culture are an integral part of the class.

Listening, comprehension, and reading skills are stressed. Writing skills are improved through compositions on topics of general interest. Speaking skills are strengthened through discussions of material chosen by the teacher and students, and by the oral presentation of short reports on cultural items.

Italian 1 emphasizes oral proficiency and gives the student an opportunity to communicate in Italian. Reading and writing focuses on various cultural topics chosen by the teacher and students.

This course is designed to expand on the knowledge base acquired in the previous three years of study. There is a strong emphasis on application and demonstration of ability. The curriculum is designed to expose students to the real world applications of the language.

The Latin 1 courses students will explore the classical world and its legacy in modern America through the study of the language and life of people in ancient Pompeii, Roman Britain and Roman Egypt. Students will examine how the Romans spread their culture and language across their empire through the study of vocabulary, grammar, reading and cultural/historical knowledge. Major topics covered include home life, entertainment, education, slavery, cultural change and exchange and ancient science.
Latin 2 reinforces and builds on the vocabulary, grammar, reading and cultural/historical knowledge learned in Latin 1. Students will read texts of higher complexity with the aim of preparing students to read authentic literature. Students will learn about Roman history and culture by reading in both Latin and English. Major topics include the military and life in the city of Rome.

**FL2035 Latin 3—Honors**
**FL3035 Latin 3—College Prep**
Sequential: Latin 2
Students in Latin 3 will read adapted literature and make the transition to authentic literature. Major cultural topics covered include life in the city of Rome, religious beliefs, the role of freed slaves in Roman society, and an introduction to ancient literature. These cultural topics will be taught using texts in both Latin and English. Students will read samples of literature from the late republican and early imperial periods in both prose and poetry.

**FL2045 Latin 4—Honors**
**FL3045 Latin 4—College Prep**
Sequential: Latin 3
Students will apply their knowledge from Latin 1-3 to read and interact with authentic Latin prose, poetry and drama. Students will experience a survey of genres, authors and styles based on student interest. Authors may include poets such as Ovid, Horace, Catullus, Lucretius, Martial and Vergil. Prose authors may include Cicero, Caesar and Pliny. Dramatists may include Plautus, Terence and Seneca.

**SPANISH**

**FS4005 The Fundamentals of Spanish 1—Post Secondary Prep**
Students will experience language and culture through the study of thematic units which will include school, family, body, food and weather/clothing. Students will be able to produce the language in writing and speaking via short conversations on familiar topics while developing their listening and reading skills. Each unit culminates with an exploration of a Spanish speaking country or region. Students who successfully complete this course will meet their graduation requirement.

**FS2015 Spanish 1—Honors**
**FS3015 Spanish 1—College Prep**
This course is an introduction to the study of the Spanish language and its culture. As a result of taking this course, you will be able to express yourself and engage in simple conversations in Spanish about yourself, your school life, your personality and preferences. You will learn the language and its culture through listening, reading, writing and speaking.

**FS2026 Spanish 2—Honors**
**FS3026 Spanish 2—College Prep**
Sequential: Spanish 1
Spanish 2 reinforces and builds on knowledge acquired in Spanish 1. This course expands on your ability to maintain a conversation about your family and home life, celebrations and shopping experiences, while making connections and comparisons to other Spanish cultures.

**FS2037 Spanish 3—Honors**
**FS3037 Spanish 3—College Prep**
Sequential: Spanish 2
In this 3rd year course, you will go beyond learning the structure of the language to applying it in real world situations by interacting with others. You are expected to read, write and discuss various real life topics, such as community service, school life, natural disasters and the environment.

**FS2044 Spanish 4—Honors**
**FS3044 Spanish 4—College Prep**
Sequential: Spanish 3
Spanish 4 aims to help students achieve a comfortable conversational level on familiar topics and to lead students towards a greater degree of independent self-expression. Students will not only learn the language and culture, but develop the skills needed to analyze and make comparisons in written and spoken language. A solid grammar base as well as speaking, reading and analytical writing skills are stressed, all within interesting real life topics.
This college course provides a thorough review of the Spanish language grammar and the systematic practice of writing. You will be presenting, writing, discussing and reading about current topics affecting our society. You will also analyze your role in these controversial changes.

This course encompasses and emphasizes aural/oral skills, reading comprehension, grammar and composition skills that have been studied in previous years. Students taking this course use Spanish to communicate on a variety of topics in a variety of ways. Students taking this course may earn three UConn credits for a grade of C or higher. This is equivalent to Spanish 278 at UCONN. Students are also able to take an AP exam at the end of the course.
ACCESS TO SCHOOL RECORDS

The "Education Amendments Act", also known as the "Family Education Rights and Privacy Act" requires each local school district to notify parents and eligible students, at least annually, of the following information:

The types of educational records maintained by the local school system and the persons who have access to the student records and purposes for which they have access.

PROCEDURES FOR REVIEWING AND EXPUNGING THE STUDENT RECORDS

<table>
<thead>
<tr>
<th>TYPE OF RECORD</th>
<th>LOCATION OF RECORDS</th>
<th>RECORD CUSTODIAN</th>
<th>ACCESSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMINISTRATIVE RECORDS</td>
<td>Individual Schools</td>
<td>School Principal</td>
<td>These records are available to certified school personnel with legitimate educational reasons.</td>
</tr>
<tr>
<td>SPECIAL RECORDS</td>
<td>Individual Schools</td>
<td>School Principal</td>
<td>These records are available to certified school personnel with legitimate educational reasons.</td>
</tr>
<tr>
<td>CLASSIFIED RECORDS</td>
<td>Individual Schools</td>
<td>School Principal</td>
<td>These records are available to certified school personnel with legitimate educational reasons.</td>
</tr>
</tbody>
</table>

Educational Policy #5125-STUDENT RECORDS, authorizes the record custodian to periodically review all data contained in the student records and to further remove and discard inappropriate or useless data. Only material that is considered pertinent and appropriate in planning a student's educational program is maintained. This policy further permits access by authorized school personnel, parents and/or guardians. Such request is to be made in writing to the record custodian. The school system will then make available qualified personnel to assist with explanation and/or interpretations of the student record.

APPEAL PROCEDURE

The opportunity will be afforded to parents or adult students to challenge the content of the student record to insure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or the other rights of the student. The parent or adult student shall have the right to challenge the validity of any data contained herein.

INFORMAL PROCEDURES

Parents or adult students have the right to request a conference with the custodian of the records to make their objections known. If the problem is not resolved at this time, a request in writing for a hearing should be made to the Superintendent of Schools.

FORMAL PROCEDURES

A review panel established by the Superintendent of Schools will convene to hear the challenge and render a decision within two weeks after being notified of such appeal by the record custodian, unless the parent or adult student requests a delay.

If the decision is in favor of the parents, the Superintendent will promptly take steps as may be necessary to implement the decision.

In the event the decision rendered by the review panel is not satisfactory to the parents, they then shall have the right to appeal to the Manchester Board of Education. Requests for such appeal shall be in writing to the Chairperson of the Manchester Board of Education.

Parents and adult students are entitled to be represented by an advocate of their choosing.

Appeal from the decision of the Manchester Board of Education shall be to the Court of Common Pleas.

PROCEDURES FOR OBTAINING COPIES OF RECORDS

Copies of records may be obtained from the record custodian at a nominal cost. Please request in writing.

LOCATION AND AVAILABILITY OF RELEVANT FEDERAL, STATE, AND LOCAL POLICIES

Copies of federal and state laws concerning student records, along with the local board policy, are on file in the office of the Superintendent of Schools and are available for review.

NCAA INITIAL-ELIGIBILITY FOR COLLEGE ATHLETES

Students planning to enroll as college freshmen who want to participate in DIVISION I or DIVISION II athletics must be certified by the NCAA Initial-Eligibility Center. DIVISION III schools do not require students to be certified.

It is each student's responsibility as a “prospective student-athlete” to make sure the NCAA Eligibility Center has the materials needed for certification. This is an important process and lack of planning could result in not being approved to play at the college level. Students should start to track their progress beginning in their freshman year by going to the NCAA Eligibility Center website (www.eligibilitycenter.org) to access information needed to understand the Division I and Division II eligibility requirements, register with the NCAA Eligibility Center, and access individual records.

We recommend students begin the registration process no later than the spring of their junior year. To start the registration process, a student must go the NCAA Eligibility Center website (www.eligibilitycenter.org) create an account, register and file a student release form. This form, as well as the required fee, must be submitted to the Eligibility Center. Students are also required to submit their high school transcript. Once requested, an official student transcript will be submitted from the School Counseling Office.