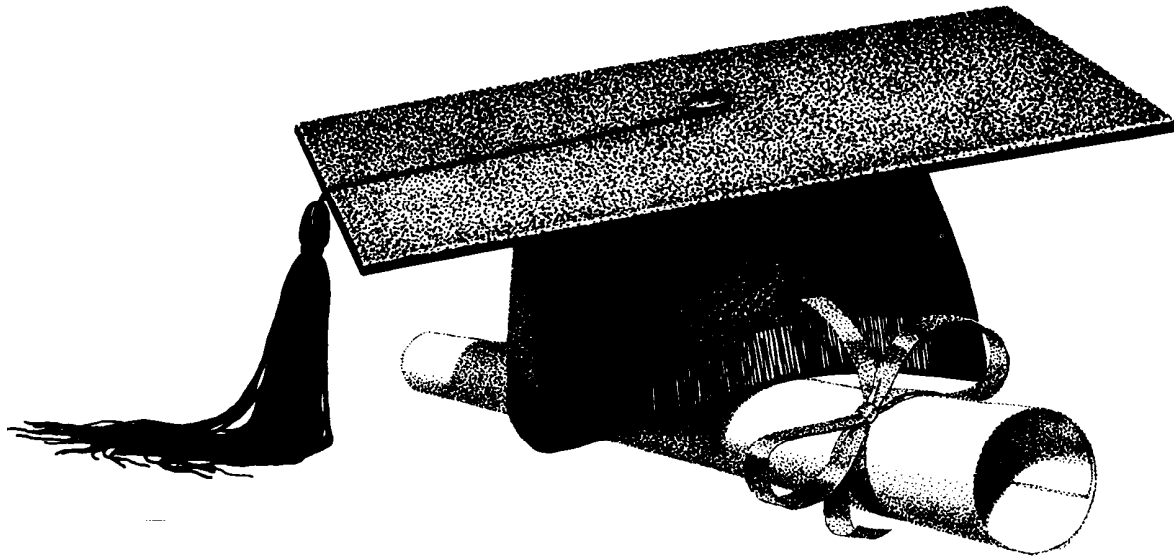


# Course Description Catalog

- Academic & Technological Proficiency Programs
- Graduation Requirements



2012 - 2013

Excellence in Education – in Worcester County  
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2012 - 2013

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## INTRODUCTION

The purpose of the high school program in Worcester County is to help students gain the knowledge and skills needed to follow academic pursuits in post-secondary education, to prepare students for careers in the world of work, and to help develop those citizenship qualities needed to maintain and improve our democratic way of life.

If the schools are to achieve the purposes for which they function, an attempt must be made to provide a program of instruction that is meaningful and valuable to each individual eligible for a high school education. School counselors, teachers, and parents need to encourage all students to participate in the most rigorous program for which they may be capable.

The awarding of a high school diploma should indicate the student's successful completion of the minimum requirements set forth by the Maryland State Board of Education and the Worcester County Board of Education. The diploma shall be interpreted to mean that the student has complied with the academic, social, and attendance regulations of the school and has successfully completed courses that are commensurate with his/her ability.

Students graduating from a Worcester County High School will be required to satisfy all the requirements of the State of Maryland plus those additional requirements of the Worcester County Board of Education.

In 2009 and thereafter, eligible graduates of the Worcester County Public Schools may be awarded the Worcester County Certificate of Merit<sup>1</sup> and/or a Career and Technology Program Certificate. These certificates provide graduates with documented evidence of the type of high school program completed. The Career and Technology Program also describes the skills obtained while enrolled in a technology program. This certificate should help students understand the skills they possess when seeking employment and help employers assess the proficiencies attained by graduates seeking employment.

A Maryland High School Certificate is available only for handicapped students receiving special education services who are not able to meet the requirements described above.

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<sup>1</sup> see page eight (8).

## GRADUATION REQUIREMENTS

To be awarded a diploma, a student shall be enrolled in a Maryland Public school system and have earned a minimum of 21 credits that include the following:

Subject Area	Specific Credit Requirements	Assessments
English	<b>4 credits</b>	Students are required to meet Maryland's Assessment requirements (see page 3).
Mathematics	<b>3 credits</b> <ul style="list-style-type: none"> <li>• 1 in algebra/ data analysis</li> <li>• 1 in geometry</li> <li>• 1 other</li> </ul>	
Science	<b>3 credits</b> <ul style="list-style-type: none"> <li>• 1 in biology</li> <li>• 2 that must include laboratory experience in any or all of the following areas: earth science, life science, environmental science, physical science</li> <li>• Successfully complete a locally designed environmental literacy program</li> </ul>	
Social Studies	<b>3 credits</b> <ul style="list-style-type: none"> <li>• 1 in U.S. history</li> <li>• 1 in World history</li> <li>• 1 in local, state, national government</li> </ul>	
Fine Arts	<b>1 credit</b>	
Physical Education	<b>½ credit</b>	
Health	<b>½ credit</b>	
Technology Education	<b>1 credit</b>	
Other	<b>2 credits</b> of World language <b>or</b> <b>2 credits</b> of American Sign Language <b>or</b> <b>2 credits</b> of advanced technology ed. <b>and</b> <b>3 credits</b> in electives <div style="text-align: center;"><b>or</b></div> <b>4 credits</b> by successfully completing a State-approved career and technology program <b>and</b> <b>1 credit</b> in an elective	
<b>Students must also meet attendance, service learning, and all local school system requirements.</b>		

All students must achieve the following:

Students who enter grade 9 in 2011-2012 and thereafter must take the Maryland High School Assessments (HSA) for English II, Algebra/Data Analysis, and Biology. The student must achieve one of the following:

1. the passing score on each test;
2. a combined overall score of 1,208;
3. a specific score on an MSDE-approved comparable assessment(s); or
4. eligible students may complete an Academic Validation Project Package (Bridge Plan).

Students who enter grade 10, 11 or 12 in 2011-2012 will have the same HSA graduation requirements as above; however, if they previously passed the Government HSA, they may continue to use the combined score option of 1,602 for all four HSAs in order to satisfy the graduation requirement. (The Government Bridge Plan will no longer be available.)

AND

Successfully complete course credit requirements as identified above and service learning requirements.

## **TECHNOLOGY GRADUATION REQUIREMENT**

Courses meeting the one credit Technology graduation requirement:

Foundations of Technology Systems  
Technology Applications  
Physical Science: Physics/Technology  
Introduction to Engineering Design

## **ADVANCED TECHNOLOGY GRADUATION REQUIREMENT**

Courses meeting the Advanced Technology graduation requirement:

Advanced Design Applications  
Technological Issues and Impacts  
Creative Engineering: Mech-Tech Challenge

## **DIPLOMAS AND CERTIFICATES (STATE)**

The diploma awarded to students upon graduation from a Maryland public high school shall be:

1. A State diploma; and
2. In recognition of the fulfillment of the minimum enrollment (four years beyond grade 8), competency prerequisite, credit, and student service requirements.

There is also a State certificate for completion of a special education program named the Maryland High School Certificate. This certificate is awarded only to students with disabilities who cannot meet the requirements for a diploma but who meet one of the following standards:

1. The student is enrolled in an education program for at least four (4) years beyond grade eight or its age equivalent, and is determined by an Individualized Education Program (IEP) with the agreement of the parents of the student with disabilities, to have developed appropriate skills for the individual to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life, with the world of work including but not limited to:
  - a. Gainful employment,
  - b. Work activity centers,
  - c. Sheltered workshops, and
  - d. Supported employment.
2. The student has been enrolled in an education program for four (4) years beyond grade eight or its age equivalent and has reached age 21.
3. In either 1 or 2 above, the student must complete State assessments for students with disabilities not seeking a high school diploma.

## **MARYLAND COMPETENCY PREREQUISITES**

A student must demonstrate competencies in the following areas as listed in the State Board of Education approved Declared Competencies Index, which is incorporated by reference in COMAR 13A.03.01.03A:

1. In Arts/ Physical Education/ Health, participate in the approved programs of the Arts/Physical Education/Health.

## **SERVICE LEARNING GRADUATION REQUIREMENT**

Worcester County has chosen an integrated program as the best way to ensure students will be able to participate in service opportunities.

The middle school program consists of grade-level projects based on themes. In-class activities, guest speakers, and field trips in the community help students to learn about service to others.

The 9th grade program is in the required social studies class and is correlated to the Core Learning Goals in Government.

### **HIGH SCHOOL CREDIT DURING MIDDLE SCHOOL**

Students in middle school may earn high school credit upon successful completion of all course requirements and receipt of a passing score on the high school end-of-course tests or High School Assessments (HSA)/Maryland School Assessments (MSA).

Some colleges, universities, and the National Collegiate Athletic Association (NCAA) Clearinghouse may not accept high school graduation credit earned while in middle school. In those cases, students need to fulfill state graduation requirements by earning credits in subsequent high school courses for which the middle school courses were prerequisites. For example, students earning Algebra and World Language credit in middle school should take additional courses in those subjects in high school to meet graduation requirements.

### **TRANSFER STUDENTS**

A student who transfers from a nonpublic middle or high school may be exempt from one or more of the Maryland High School Assessments if the high school principal awards the student credit for algebra/data analysis, biology, English 10 or government or all of these. To award credit for each or all of these courses, the principal shall determine through the following considerations whether the student demonstrates subject matter knowledge aligned with the content standards for the subject:

- administration of standardized tests and examinations;
- inspection of transcripts, report cards, and other documents; and
- use of content knowledge and performance level interviews

### **INTERNATIONAL STUDENTS**

Course credit toward meeting the graduation requirements will be awarded on a case by case basis using the same criteria for awarding transfer credit.

### **ONLINE COURSES**

Students wishing to take online courses may do so in accordance with Worcester County Public Schools Policy and Procedures for Online Courses.

### **ALTERNATIVES TO FOUR YEAR ENROLLMENT**

There are three alternatives to completing all four years of high school in a Worcester County Public School. They are I. Completion of the entire senior year in a college or approved vocational, technical, or other post-high school institution; II. Completion of half of the senior year (January to June) at a college/university, technical training school, or work in a career related to the high school course of study; III. Concurrent enrollment at a college/university or other accredited school. Further explanation of the requirements related to these alternatives follows:

#### **I. Completion of the Entire Senior Year in a College/University, Approved Vocational, Technical or other Post High-School Institution:**

**Prior to January of the junior year, students seeking this alternative must meet with a guidance counselor in their school to review all the requisite conditions to receive approval of this alternative.**

#### **A. Early College Admission Program.** A student may receive a Maryland High School Diploma after completion of grade 11 through acceptance in the early college admission program, provided that:

1. The student is accepted for early admission to an accredited college before high school graduation;
2. All state competency prerequisite and student service requirements have been met;
3. A written request by the student and parent or guardian is made to and approved by the local superintendent of schools, asking the waiver of the 4th year attendance requirement and certifying the early admission acceptance;
4. Present evidence of having passed all diagnostic assessments or achieved SAT scores of 550 or better in Critical Reading and Mathematics or

- a 21 or better on ACT subscores if going to attend an open enrollment college;
- 5. The student's program for the first year of college is approved by the local superintendent of schools if this program is included toward the issuance of a high school diploma; and
- 6. At the conclusion of a full year of study, a written request for the high school diploma is submitted to the superintendent together with a transcript or letter from the college to the high school principal indicating that the student has successfully completed a year of college work.

**B. Early Admission to Approved Vocational, Technical, or Other Post-High School.** A student may receive a Maryland High School Diploma after completion of grade 11 through acceptance in an early admission program of an approved vocational, technical, or post-secondary school program if:

- 1. The student is accepted for early admission by an approved vocational, technical, or post-high school before high school graduation;
- 2. All state competency prerequisite and student service requirements have been met;
- 3. A written request by the student and parent or guardian is made to and approved by the local superintendent of schools, asking the waiver of the 4th year attendance requirement and certifying the early admission acceptance;
- 4. Present evidence of having passed all diagnostic assessments or achieved SAT scores of 550 or better in Critical Reading and Mathematics or a 21 or better on ACT subscores if going to attend an open enrollment college;
- 5. The student's program for the first year of college is approved by the local superintendent of schools if this program is included toward the issuance of a high school diploma; and

- 6. At the conclusion of a full year of study, a written request for the high school diploma is submitted to the superintendent together with a transcript or letter from the college to the high school principal indicating that the student has successfully completed a year of college work.

Students pursuing this option may be eligible for departmental awards as juniors according to departmental eligibility requirements. They are ineligible, however, to participate in extracurricular activities at the high school during their year in college. In addition, they are ineligible for The Old Home Prize.

**II. Completion of half of the senior year (January to June) at a college/university, technical training school or work in a career related to the high school course of study.**

- A. **In September of the senior year**, students must meet with a guidance counselor in their school to review all of the requisite conditions to receive approval of this alternative plan. Students must:
  - 1. Have completed all requirements for graduation;
  - 2. Take four major subjects during the senior year;
  - 3. Have a cumulative attendance rate of 94%;
  - 4. Have an overall grade point average of 2.5 on a 4.0 scale;
  - 5. Have written request from parents/guardians;
  - 6. Be going immediately to a) college, b) technical/training school, c) work in a career related to the course of study, or d) the military, if appropriate for the certificate being earned;
  - 7. Present evidence of having passed all diagnostic assessments or achieved SAT scores of 550 or better in Critical Reading and Mathematics or a 21 or better on ACT subscores if going to attend an open enrollment college; and
  - 8. Be recommended by the principal for release from high school.
- B. At the conclusion of the experience as outlined above, a written request for the high school diploma shall be submitted to the principal together with a transcript or letter from the college or other evidence

documenting the student has successfully completed his/her plan.

- C. Once released, students choosing this option are ineligible to participate in extracurricular activities. Students may be eligible for departmental awards presented to graduates. Interested students should consult appropriate department chair-persons to determine their eligibility. Only seniors who have completed the last two years of school (junior and senior years) in a Worcester County Public High School are eligible for The Old Home Prize.
- D. Special provisions will be made for students during the senior year to encourage them to stay in high school.
  - 1. The School To Careers Program will be made available to students who wish to come to school part of the day and have a job the rest of the day. Students are required to complete Employment and Career Preparation prior to this on-the-job experience.
  - 2. Attendance at the Worcester Technical High School for career program courses.
  - 3. Attendance at high school part of the day and taking courses at neighboring colleges/universities or other schools (see concurrent enrollment).

### III. Concurrent Enrollment at Colleges/Universities/Other Schools:

- A. **Sixty days prior to seeking approval for concurrent enrollment**, students must meet with a guidance counselor in their school to review all of the requisite conditions and to develop a plan of action to meet these conditions. Seniors may, for part of the day, take college credit (not remedial level) coursework at neighboring universities/ colleges, or other schools in order to further their education. Students planning to attend open enrollment colleges (community colleges) must present evidence they have met ALL diagnostic assessments prior to being released from high school during the school day. Students must take four credits of high school coursework and may be awarded no more than the maximum number of credits permitted by the high school schedule for the year. Courses taken at colleges/universities, etc.

must be courses that are not offered at the student's high school. Grades for these courses would not count in the student's grade point average, except where these courses are listed in the most current Worcester County High School Course Description Catalog. Students must present evidence of admission to the college/university.

- B. In addition, students must meet the following requirements:
  - 1. be a senior;
  - 2. be on track for graduation;
  - 3. be at least 16 years of age by the beginning of the college semester;
  - 4. possess a cumulative grade point average of 2.5 on a 4.0 scale;
  - 5. have a cumulative attendance rate of 94%;
  - 6. be enrolled in a public high school in Worcester County;
  - 7. be certified by an official of the high school as meeting all of the eligibility requirements outlined above;
  - 8. have successfully passed all college diagnostic assessments or achieved SAT scores of 550 or better in Critical Reading and Mathematics or a 21 or better on ACT subscores;
  - 9. have successfully completed Algebra II;
  - 10. take four major subjects during the senior year;
  - 11. have written request from a parent or guardian; and
  - 12. be approved by the superintendent of schools.

**WORCESTER COUNTY  
HIGH SCHOOL CERTIFICATES**

Certification in programs can be met by completing the requirements in State assessments (see page 3) in addition to the following coursework:

**STATE DIPLOMA CERTIFICATE**

(Minimum of 21 credits)

Subject Area	Specific Credit Requirements	Assessments
English	<b>4 credits</b>	Students are required to meet Maryland's Assessment requirements (see page 3).
Mathematics	<b>3 credits</b> <ul style="list-style-type: none"> <li>• 1 in algebra/ data analysis</li> <li>• 1 in geometry</li> <li>• 1 other</li> </ul>	
Science	<b>3 credits</b> <ul style="list-style-type: none"> <li>• 1 in biology</li> <li>• 2 that must include laboratory experience in any or all of the following areas: earth science, life science, environmental science, physical science</li> <li>• Successfully complete a locally designed environmental literacy program</li> </ul>	
Social Studies	<b>3 credits</b> <ul style="list-style-type: none"> <li>• 1 in U.S. history</li> <li>• 1 in World history</li> <li>• 1 in local, state, national government</li> </ul>	
Fine Arts	<b>1 credit</b>	
Physical Education	<b>½ credit</b>	
Health	<b>½ credit</b>	
Technology Education	<b>1 credit</b>	
Other	<b>2 credits</b> of world language <u>or</u> <b>2 credits</b> in American Sign Language <u>or</u> <b>2 credits</b> of advanced technology ed. <u>and</u> <b>3 credits</b> in electives  <div style="text-align: center;"><u>or</u></div> <b>4 credits</b> by successfully completing a State-approved career and technology program <u>and</u> <b>1 credit</b> in an elective	
<b>Students must also meet attendance, service learning, and all local school system requirements.</b>		

## **WORCESTER COUNTY CERTIFICATE OF MERIT**

Graduates of 2009 and thereafter may qualify for the Worcester County Certificate of Merit. Requirements for the Certificate of Merit include passing all required State assessments in addition to the following coursework:

- English - 4 credits (Must be earned in Level 3 or 4 courses)
- Social Studies - 4 credits (Must be earned in Level 3 or 4 courses)
- Science - 4 credits (Must be earned in Level 3 or 4 courses)
- Mathematics - 4 credits (Must be earned in Level 3 or 4 courses)
- World Language - 3 credits (Must be earned in same language)
- Electives - 6 credits (All Level 3 or above)
- Fine Arts - 1 credit
- Physical Education/ Health/Family Life - 1 credit
- Technology Education - 1 credit

Students receiving this certificate may have no final course grade of F. Students must also have a 3.5 weighted GPA. This is a 28-credit requirement.

## **COLLEGE CREDIT FOR HIGH SCHOOL COURSES**

Worcester County High Schools offer eligible students opportunities to receive college credit/advanced placement/or both through the following courses and program options:

### **Advanced Placement Courses**

Each high school and the Technical High School offer advanced placement (AP) courses through the College Board. The College Board's AP Program enables students to complete college-level studies while they are still in high school and to obtain college placement or credit, or both, on the basis of their performance on AP Examinations. Colleges and universities formulate an AP policy appropriate to their institution:

- Some award "credit" for qualifying AP Exam grades of 3 or better. This means students can receive college credit toward their college degrees.
- Others award "advanced placement." This means students can skip introductory courses, enter higher level courses, and/or fulfill general education credits.

## **Wor-Wic Community College Courses**

While attending their own high school, eligible students may receive credit for appropriate Wor-Wic Community College courses. These college-level courses are identified in the Worcester County Course Description Catalog. To receive credit, students must, prior to taking the course:

- enroll at Wor-Wic Community College;
- register for the course in the designated section assigned for Worcester County Public School students;
- be 16 years of age or older on the start date of the class;
- have successfully passed required diagnostic assessments;
- have a cumulative grade point average of at least 2.5 on a 4.0 scale;
- have paid their fees; and
- complete all of the above at least two weeks prior to the beginning of the first class session.

## **Career Technical Programs**

Worcester County Public Schools participate in articulation agreements with community colleges in various states. Students who earn a "B" or better in technical programs that have the content of their curriculum aligned with corresponding certificate and degree programs at the colleges may earn credit for the work they have completed in high school.

The following programs at Worcester Technical High School are articulated with Wor-Wic Community College:

- Academy of Health Professions
- Accounting
- Office Systems Management
- Agriculture Science
- Carpentry
- Computer Technology
- Culinary Arts
- Early Childhood Education
- Electronics
- Emergency Services (EMT-B)
- Manufacturing (CADD)
- Marketing
- Protective Services

The programs at Worcester Technical High School have articulation agreements with colleges, universities, and trade schools such as:

- Community College of Baltimore County
- Delaware Technical and Community College
- Nashville Auto Diesel College
- Penn State College of Technology
- Rochester Institute of Technology
- Universal Technical Institute

- University of Northwestern Ohio
- Credit is awarded in all cases after a student is accepted into a program of study and is in good standing at the college.

## **CAREER AND TECHNOLOGY PROGRAM CERTIFICATES**

### **1. Career and Technology Certificate (minimum of 24 credits)**

- English - 4 credits
- Social Studies - 3 credits (U. S. History, World History, Government)
- Science - 3 credits
- Mathematics - 3 credits
- Fine Arts – 1 credit
- Technology Education - 1 credit
- Physical Education/Family Life & Human Development/ Health - 1 credit
- Electives - 3 credits
- Student Service - meet all requirements
- Successful completion of an approved career and technology program (see credit requirements below)

### **2. Tech Prep Certificate (minimum of 26 credits at Level III or higher)**

- English - 4 credits
- Social Studies - 3 credits (U.S. History, World History, Government)
- Science - 3 credits
- Mathematics - 3 credits
- Fine Arts – 1 credit
- World Language – 2 credits
- Technology Education - 1 credit
- Physical Education/Family Life & Human Development/ Health - 1 credit
- Electives – 3 credits
- Student Service - meet all requirements
- Successful completion of an approved Tech Prep program with a “B” or better average.

## **TECH PREP PROGRAMS**

- Academy of Health Professions
- Agriculture Science
- Automotive Technology
- Biomedical Science/Project Lead the Way
- Business Management and Finance
- Computer Technology
- Construction Technology
  - Carpentry*
- Culinary Arts
- Early Childhood Education
- Electronics Technician
- Emergency Services

- Heating, Ventilation, Air Conditioning and Refrigeration
- Interactive Media Production
- Pre-Engineering/Project Lead The Way
- Protective Services

## **OTHER CONSIDERATIONS**

1. Each student must be enrolled for credit in at least four major subjects each year. The major subjects are English, Social Studies, Science, Mathematics, World Language or an approved CTE program. A work study student must be enrolled in four classes. Two of those four classes must be major subjects.
2. Credits earned prior to entering high school may count as meeting minimum requirements or credits.
3. See page 4 – High School Credit During Middle School.

## **TRANSFER CREDITS**

The Worcester County Public Schools will accept transfer credits from public or private high schools that are state accredited if the courses are consistent with the County's offerings. The high school principal shall determine by an evaluation of a student whether credits earned at a nonaccredited high school will be accepted. This evaluation may include administration of standardized tests and examinations, the use of interviews, as well as the inspection of transcripts, report cards, and other documentation.

In order to receive a Maryland high school diploma, a student must be in attendance at a Worcester County high school for one full semester preceding graduation in addition to meeting other diploma requirements. Students who meet all the graduation requirements and transfer from another Maryland public high school will have the option of graduating from either high school by agreement of the respective superintendents.

## **SCHOOL - TO - CAREERS PROGRAM**

Through Tech Prep programs of study and work-based learning experiences, traditional learning extends beyond the school walls to prepare students for the world of work and post secondary education. Students who participate in Tech Prep programs of study combine relevant technical coursework with rigorous academic curriculum that prepares them to continue their studies after graduation in two or four year institutions of higher learning. Partnerships with area business, industry, and governmental agencies prepare students by providing opportunity for internships, apprenticeships, job shadowing, and

paid work experiences. Students recommended by their instructors may elect to spend part of the school day in paid work experiences in an area related to their technical studies. These placements are supervised by the school system. Students may receive up to nine elective credits toward graduation requirements through work-based learning experiences.

A	4
B	3
C	2
D	1
F	0

These grade values are utilized in conjunction with the course level value to make determinations of the student's academic achievement.

## GRADING STANDARDS AND PROCEDURES

The school year is divided into four (4) marking terms. At the end of each nine-week term, students receive a report card for each subject. The grade card provides an assessment of student performance that term. Students earn number grades in the academic subjects based upon a percentage assessment. These number grades are assigned as follows:

90-100%	A	Superior achievement
80-89%	B	Good achievement
70-79%	C	Average achievement
60-69%	D	Poor achievement
59% or less	F	Failing work

Students will also receive an assessment on how well they are working in accordance with their ability. Each report card contains an area on which the teacher and/or parent may write comments concerning the student's progress. This area may also be used to include a request for a conference.

Report cards are sent home each term and contain the records of attendance. Parents should sign the report card and return it to the school promptly.

## UNIT OF CREDIT

During the normal school year, each high school class will meet a minimum of 132 class hours. Once the student successfully meets the expectations of a yearly class, the student receives one (1) unit of credit. It is the accumulation of these units of credit in the appropriate subjects/subject area, and in the required number, that will determine which high school diploma and certificate the student receives.

## GRADE VALUE

Letter grades are assigned on a percentage basis. Both the percentage and letter grades will appear on the student's grade card each marking term. Each letter grade carries an additional numerical value. These values are:

Grade	Point Value
-------	-------------

## COURSE LEVELS

Each course in the curriculum of the Worcester County high schools has been assigned a course level value. This value is an indicator of the degree of difficulty the student may encounter. The student and his/her parents may wish to consult these values in their selection of courses. The course level value will appear on each student's report card. The levels are defined as:

Level	Descriptor	Defined
I	Basic	The courses are usually of a remedial nature.
II/ III	Tech Prep/ College Prep	These courses are of a challenging nature.
IV	Advanced College Placement	These courses are only those for which advanced college placement credit may be earned.

## ACADEMIC SIGNIFICANCE

The academic significance of a completed course of study may be determined by multiplying the numerical value of the grade by the value of the course level. For example, a student receiving the letter grade of "A" (value 4) in an advanced course (Level III) would earn the academic significant value of 5.

Worcester County high schools utilize the academic significance in determining grade point average, scholastic standing, academic recognition and admission to the National Honor Society.

*Note: An "F" grade will receive no credit before or after weighting.*

## FINAL EXAM POLICY

Philosophy:

The Worcester County Board of Education believes that the effectiveness of the instructional program is enhanced by well-defined learner outcomes, the use of a variety of effective teaching strategies, and various methods of assessment. The

Board recognizes that a variety of assessments provides much of the information that make the cycle of instruction work. Measures of student achievement help educators ensure that the school system will meet its instructional goals.

The Board further believes that final examinations: help to bring focus to the essential outcomes specified in the course of study, help to bring closure to a course and promote curricular articulation among the high schools. Final examinations are an important measure of student achievement and mastery of course content. They provide principals, school improvement teams, and others with an additional means of evaluating the success of the school's instructional program. They provide a measure of quality control, and are responsive to the increasing expectations of the public and the professional staff relative to accountability. Finally, experiences with locally developed final examinations can better prepare students for successful achievement in end-of-course State examinations required for graduation.

#### General Guidelines:

1. Final examinations must be completed in order to qualify for the awarding of high school course credit.
2. All students will take a comprehensive final examination in all grade 9 - 12 subject areas.

#### Exemptions:

- Students enrolled in high school courses who take college/national examinations or MSDE approved CTE industry certification tests at the immediate end of the course are exempt from final examinations. Their final course grade will be the cumulative grade in the course. In some cases, AP courses may be offered in the fall of the year when no AP examinations can be administered. In these instances, students shall take a comprehensive final examination.
  - Upon the recommendation of the teacher and approval of the principal other individual exemptions may occur.
3. Final examination grades shall be averaged as part of the final course grade and shall count as 10% of the final course grade.
  4. Students who receive special education services are expected to successfully complete their Individualized Education Plan. Students who receive special education services in general education classes will take final examinations as required by the Individualized Education Plan.
  5. Final examinations shall be based on the contents of the entire course and evolve directly from the approved curriculum.
  6. An objective and/or essay test shall constitute a reasonable portion of the final examination grade

in all courses. In addition, portfolios and other performance assessments, etc. may be included in the final examination. The assessments of subject knowledge of the student will incorporate methods appropriate to the State high school assessment and will cause him/her to exhibit higher level thinking skills associated with MSA/HSA and other current learning philosophies.

7. Time shall be allocated in each course for a review prior to the final examination.
8. 100% of the examination will be developed by supervisors/coordinators in sessions with content area teachers from schools in the county.
9. As the State end-of-course assessments are implemented, other local end-of-course requirements may change.
10. Final examinations will be administered on a half-day basis for students scheduled at the end of the course and will not exceed two hours in length.
11. The annual County school calendar will indicate the half days for students designated as EXAM DAYS, taking into account the differing schedules among the high schools.

## ACADEMIC RECOGNITION

Students exiting high school may be eligible for departmental awards. Interested students should consult appropriate department chairpersons to determine their eligibility.

Only seniors who have completed the last two years of school (junior and senior years) in a Worcester County Public High School are eligible for the Old Home Prize.

A Three-Tiered Senior Recognition Program will be based on the cumulative, weighted grade point average in English, Mathematics, Social Studies, Science, and World Language, including all Advanced Placement/college level courses in Worcester County Public Schools' academic programs. The tier for which a senior may qualify will be determined at the end of the third marking period.

The honor tiers are as follows:

- Summa Cum Laude – 5.05 GPA and above
- Magna Cum Laude – 4.90 to 5.04 GPA
- Cum Laude – 4.80 to 4.89 GPA

GPA calculations will be carried out to three decimals (or thousandths) and rounded to two decimals (or hundredths). For example, a GPA of 5.045 will be rounded to 5.05.

If a senior qualifies for one of the honor tiers, the designation will be noted on the student's transcript.

**Honor roll and scholastic achievement recognition will be based on a student's grade**

**point average in all coursework.** To be eligible for honor roll and scholastic achievement recognition, including the Scholastic Achievement Award, a student may not have a grade of D or F in any subject. A student must be enrolled in at least two major courses (English, Math, Science, Social Studies, World Language, Technology/Business Education courses, Computer Science, and SAT Prep/College Research) each grading period at Level II or above.

To be eligible for the honor roll a student must have a minimum weighted grade point average of 3.5. To be a candidate for the distinguished honor roll, a student must have a minimum weighted grade point average of 4.5 with no grade below a "B" in any course. A student with a "C" and a grade point average of 4.5 or higher will be moved to the honor roll.

**Computations for honor roll will be determined by marking period grades.**

Honor Roll Computation - Example

The honor roll is computed using the following calculations:

- A - 4 points
- B - 3 points
- C - 2 points

If the course is an honors course (Level III), one bonus point is added so that:

- A - 5 points
- B - 4 points
- C - 3 points

If the course is an AP course (Level IV), two bonus points are added so that:

- A - 6 points
- B - 5 points
- C - 4 points

EXAMPLE:

COURSE	LEVEL	GR.	POINTS
Semester I, First Marking Period			
English	3	A	5
AP Psychology	4	B	5
World History	3	A	5
Crafts	2	A	4
Semester II, Second Marking Period			
Trigonometry	3	B	4
AP Chemistry	4	C	4
Physical Education	2	A	4
Technology Education	2	A	4

All four courses taken each semester are used in the calculations, and each course is worth one credit, for a total of four credits.

For Semester I during the first marking period, 19 points (5 + 5 + 5 + 4) are earned and divided by

the four courses/credits for a weighted GPA of 4.75 and Distinguished Honor Roll status.

For Semester II during the second marking period, 16 points (4 + 4 + 4 + 4) are earned and divided by the four courses/credits for a weighted GPA of 4.00 and Honor Roll status.

**WeXL  
SCHOLASTIC RECOGNITION  
PROGRAM**

Worcester County Public Schools recognizes scholastic achievement in order to:

1. Recognize and reward students who excel in scholastic achievement;
2. Instill pride in outstanding scholastic achievement;
3. Focus attention on the academics and the worth and value of scholarship;
4. Provide an incentive to stimulate students to excel in scholastic areas; and
5. Promote school and community awareness and pride in outstanding scholastic achievement.

A marking period refers to the end-of-quarter classroom grade, as printed on a student's report card under the quarter column. There are four marking periods in a school year, shown as Q1, Q2, Q3, or Q4 on report cards. A marking period grade does not include the final course exam or the end-of-course/semester grade. Marking period grades are used to calculate Quarter Weighted GPAs.

**Scholastic Recognition Banquet**

A Scholastic Recognition Banquet (also known as the WeXL Banquet) will be held in the late spring of every school year for all high school students who qualify. Each school will form a committee to verify which students have qualified. Below are explanations and requirements of each recognition available to students. Letters, pins, and certificates will be presented at the banquet.

**Scholastic School Letter:**

1. To earn a scholastic letter, a student must maintain a 3.5 Quarter Weighted GPA, with no Ds or Fs in any course, for a range of four consecutive marking periods. This achievement equates to an Honor Roll status or higher.
2. Consecutive marking periods can be in the same school year (Q1, Q2, Q3, and Q4) or they can occur consecutively from one year to the next (Q3 and Q4 in Semester 2 of a school year, and Q1 and Q2 in Semester 1 of the very next school year).
3. If a student does not earn a 3.5 Quarter Weighted GPA in a marking period immediately prior to the banquet, after having earned *four*

*consecutive marking periods* not yet recognized, that student will still be invited to the banquet.

4. To qualify, a student must be enrolled in at least two major courses (English, Mathematics, Social Studies, Science, World Language, Technology/Business, Computer Science, and SAT Prep/College Research) at a Level II or higher.
5. *Exception 1:* All students who have earned a 3.5 Quarter Weighted GPA for three consecutive marking periods in their ninth grade year, will qualify for the banquet in the late spring of their ninth grade year.
6. *Exception 2:* Students new to Worcester County Public Schools in grades 10-12 who qualify for three consecutive marking periods immediately after enrollment will earn a scholastic school letter.
7. *Note:* Students who transfer from one Worcester County Public School high school to another will “carry” their consecutive marking periods with them and will have the number of eligible marking periods applied to their new school in our system.

#### **Scholastic Bar Pin:**

1. The second time a student earns a 3.5 Quarter Weighted GPA, with no Ds or Fs in any course, for a range of four consecutive marking periods, the student will be presented with a bar pin to be added to the student’s letter.
2. A student will continue to earn bars for achieving this standard.

#### **Scholastic Star Pin:**

1. To earn a scholastic star pin, a student must maintain a 4.5 Quarter Weighted GPA, with no grade below a B in any course, for a range of four consecutive marking periods. This achievement equates to a Distinguished Honor Roll status.
2. A student will continue to earn stars for achieving this standard.

#### **Consecutive A’s Certificate:**

1. The same marking periods used to qualify for the Scholastic Recognition Banquet will be used to qualify a student for the Consecutive A’s recognition.
2. Consecutive marking period grades are used in this recognition, **not** end-of-course or semester grades.

## **HIGH SCHOOL REVIEW CREDIT (SCHOOL YEAR)**

Students who wish to raise a D or F subject grade received in a high school course may attempt to do so by attending a school year review credit program. The following standards apply to review credit enrollment.

1. The student must have attended the class to be reviewed for the full school year even though he/she may have received a failing grade.
2. Subjects offered during the school year will be limited to those in which there is sufficient student demand.
3. No less than 45 clock hours of in-class work will be accepted for one unit of credit in academic subjects. 22.5 clock hours of in-class work will be accepted for one-half credit in academic subjects.
4. Courses may be offered after school, during school, and during the summer.
5. Students will be responsible for their transportation arrangements if transportation is not available.
6. Students must have approval by his/her school principal or designee in order to be enrolled in review credit courses.
7. Students may earn a maximum of four (4) review credit courses.
8. Grades earned in review credit courses will be entered on the student’s permanent record. The original grade shall be null and void. Requests by a student’s parent/guardian that a grade not be recorded will be honored.

## **PROGRAM FOR EXCEPTIONAL STUDENTS**

Special education and related services are available to students identified as eligible for services under current Federal and State mandates. Eligible students are placed in courses by a committee which consists of an administrator, a special education teacher, a guidance counselor, a school psychologist and/or a speech and language therapist, and the parent. Placement in these credit earning classes is included in the student’s individualized education plan.

## **COURSE DESCRIPTIONS**

The following course descriptions are general and may vary somewhat from high school to high school both in courses offered and content. Also note that PSAT/SAT preparation instruction has been integrated through the English and math curricula. For specific information regarding a course, contact the subject area teacher.

*The following courses may not be offered in all high schools.*

## ENGLISH

Students may substitute 1) a score of three (3) or higher on the AP English Literature and Composition or AP English Language exam or 2) a score of five (5) or higher on the International Baccalaureate A1 exam for the HSA English requirement.

### English 9

211103 English Level: 3 Credits: 1.0

The primary focus of the Ninth Grade English course is the study of genre. Students are taught the characteristics of the short story, nonfiction, poetry, the novel and drama. In addition, they study the characteristic structure of each genre - the structure of the short story, nonfiction, the novel, and the three act or five act play. They also study the poets' use of poetic structure and language. All students are required to read and report on four full-length works per semester.

Language conventions are taught as needed through writing. Grammar skills include parts of speech, parts of a sentence, capitalization, punctuation, and usage. Vocabulary development is directly related to the literary selections.

Students practice speaking and listening skills through a variety of activities. They give oral reports on their readings, and they work extensively with response partners or in small groups during the prewriting and revision stages of writing lessons.

### English 10

212103 English Level: 3 Credits: 1.0  
Recommendation: Satisfactory completion of English 9

This course builds on the study of genre in the Ninth Grade. In this curriculum, students explore themes in literature, points of view, symbolism, characterization, irony, and literary language. In exploring each of these aspects of literature, students read a variety of genre - short story, nonfiction, drama, poetry, and the novel. Additionally, students are required to read four full-length works each semester.

Language conventions are taught as needed through writing. Vocabulary development is directly

related to the literary selections. Lessons in spelling are based on students' written compositions.

Writing assignments are made in the context of the writing process. Topics for compositions are an outgrowth of literary selections. Students write multi-paragraph papers and answer essay questions.

Students practice skills in speaking and listening through a variety of classroom activities: whole class discussion, group work in prewriting and revision, reports on required reading and improvisations and role-playing based on literature studied, as well as interpretative readings on assigned works.

This course prepares students for the Maryland High School Assessment in English.

### American Literature

213103 Am. Lit. Level: 3 Credits: 1.0  
Recommendation: Satisfactory completion of English 10

Students in American Literature explore the literature of the United States from colonial times to the present. The selections are studied in terms of how they affect and are affected by the social and historical climate. In addition, students read a variety of literary genre: essay, poetry, and short story. They read to interpret, to evaluate, and to expand vocabulary. Additionally, students are required to read four full-length works per semester.

In writing, students review a variety of ways to write sentences (sentence combining). They progress from one paragraph, three paragraph, and five paragraph papers with the culminating activity being a research paper. The research paper must include critical analysis of a selected American writer.

Students practice speaking skills through a variety of activities. They give oral reports and work in small groups. Students participate in class discussions. They take roles in plays and improvise characters in literature to add variety and focus to class discussions.

Students are involved in a variety of activities designed to enhance listening skills. They listen to the teacher and to each other; they respond by taking notes and asking questions. Students also listen to recordings to determine message, tone, purpose, and effect in literature.

### British Literature

214103 British Lit. Level: 3 Credits: 1.0  
Recommendation: Satisfactory completion of English 9 and 10

British literature is the basis of this curriculum. It is a historical survey starting with Anglo-Saxon literature, proceeding through Medieval, Renaissance, Puritan, 17th Century, 18th Century, Romantic, Victorian, and 20th Century writers. The literature used as a departure point for a variety of

writing exercises. Specific and appropriate reading skills are taught. In addition, students are required to read four full-length works per semester. Instruction in language and grammatical skills is systematically provided. Usage and fundamental communication skills are reviewed. Because this is the last formal educational situation for many of our students, the primary thrust of the language instruction is clear communications.

Writing is the direct result of ideas encountered in literature. Sentence sense, paragraph cohesion, and thesis development are stressed. These writing techniques are reviewed and practiced while elements of developing a personal style of writing are introduced. Writing is essentially an integrated thinking process, and as such, it is the most important activity of the Twelfth Grade curriculum.

Some formal speech instruction is provided, and occasional formal speaking opportunities are an option available to all students.

Informal speaking skills are the main thrust of classroom speech instruction. The course's literary study is generated from an active informal speech environment. Much of British literature can only be understood through thorough discussion and intensive idea exchange between peers and teachers. As a result, students are expected to verbally challenge, interpret, clarify, and digest the ideas and materials they encounter.

Listening instruction is an ongoing process of an integrated curriculum. Students are taught to focus on the listening task, recognize verbal cues, identify main ideas, interpret meaning and evaluate the validity of a speaker's tone and purpose.

### **Communications: Legal Interns**

220193 Comm: LI Level: 3 Credits: 1.0

This course offers a broad survey of a variety of communications arts via integration with elements of the legal system. Some of the skills covered will include: interpersonal communications, nonverbal communications, speech and listening skills, informed impromptu speaking, lucid relation of complex ideas and written communication. Additionally, students will learn how to conduct a direct line of questioning, facilitate a cross-examination, deliver an opening statement, deliver a closing statement, raise an objection and respond to an objection – all verbally and while maintaining professional decorum with relation to tone and body language.

Students will have an opportunity to apply some of these skills through regular meetings in front of a local lawyer and/or judge and peers in a “live” environment at local courthouses. Furthermore, students will write a legal analysis of case law relevant to their interests and deliver an oral

presentation based upon that analysis (similar to a Supreme Court brief). Students in this course should have a desire to improve their public speaking skills and a willingness to hone those skills in the rapid-fire environment of controlled debate.

### **Advanced Placement English Literature and Composition**

214104 AP English Lit/Comp Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of American Literature and British Literature.

Advanced Placement Literature and Composition is a course emphasizing the development of skills in critical reading of imaginative and discursive literature and in writing about literature and related ideas. It is designed for students capable of doing college level work in English while they are in secondary school, who are willing to devote the energy necessary to complete a course more rigorous and demanding than other high school English courses designed for the college bound student.

Because of the rigorous demands of this course, students are expected to devote as much time as necessary to keep current with class assignments and homework. The course requires extensive out-of-class reading.

This course is designed to prepare students to take an advanced placement test and earn up to two semesters of college credit in English.

Prior to the first day of class, two/three major outside readings may be required.

### **College Writing**

215104 College Writing Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of three Level 3 English courses

College Writing is a course designed to help students develop formal college-level writing skills by emphasizing the writing process to organize ideas logically and coherently. Students will write expository and persuasive essays with attention to not only content, but grammar, usage, punctuation, mechanics, diction, and sentence structure. In addition, students will gain knowledge of electronic search procedures for research purposes and apply the rules of MLA documentation.

Students may earn college credit at Wor-Wic Community College and/or take the Advanced Placement English Language and Composition exam offered by The College Board.

## ENGLISH ELECTIVES<sup>2</sup>

### READ 180

212211 READ 180 Level: 1 Credits: 1.0

READ 180 is a research-based reading program that is designed for students who need to improve their basic reading skills. The course addresses the essential elements: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. During the course, students are constantly engaged as they rotate through four different stations. The students participate in a whole-group discussion format, receive individualized instruction in a small group setting, participate in interactive software, and are provided time for individual reading. The READ 180 program provides students with the tools to celebrate reading while they develop and enhance their comprehension.

This course is for elective credit only. It does not satisfy the English graduation requirement.

### Introduction to Literature

212221 Intro to Literature Level: 1 Credits: 1.0

Introduction to Literature is a research-based reading program that is designed for students who need to improve their basic reading skills. The course addresses the essential elements: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. During the course, students are constantly engaged as they rotate through four different stations. The students participate in a whole-group discussion format, receive individualized instruction in a small group setting, participate in interactive software, and are provided time for individual reading. This program provides students with the tools to celebrate reading while they develop and enhance their comprehension.

This course is for elective credit only. It does not satisfy the English graduation requirement.

### SAT Prep/College Research

213123 SAT Prep/Coll Rsrch Level: 3 Credits: 1.0

In this course, college-bound students are provided with specific information in skills necessary to be successful on the SAT. Students are taught how to attack the test questions, are provided with the kinds of questions on the test, and are given practice in taking the SAT. At the completion of the course, students are encouraged to take the SAT at

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<sup>2</sup>A Departmental Academic Elective does not satisfy the English graduation requirement. This course counts toward graduation requirements as an elective only. The SAT Prep/College Research course is counted in determining honor roll/scholastic achievement status.

the first opportunity. After students have taken the SAT, they will work on individually prescribed skills that may include conducting research, researching colleges, writing the college essay, and learning successful study skills.

### Introduction to Theatre

220103 Into Theatre Level: 3 Credits: 1.0

The Introduction to Theatre course is designed to introduce students to the world of theatre with an emphasis on theatre history. Students will study theatre units beginning with the origins of theatre in story telling and ancient rites and rituals. Units offered may include: Greek and Roman Theatre, Medieval Theatre, Renaissance Theatre, and commedia dell'arte, Elizabethan Theatre and Shakespeare, and Restoration Drama.

As each period is introduced, students will sample the dramatic literature of the period by studying a play or portions of a play. Scenes may be enacted and design projects may be incorporated into the analysis of the text.

Students will be introduced to the form and structure of a script and will learn how to read a script. Along with this, students will be introduced to the basic terminology of dramatic literature, such as rising action, and the basic terminology of the theatre, such as upstage and downstage. Students will make diagrams of a variety of types of stages and learn the strengths and limitations of the proscenium arch, arena, and thrust stages.

Throughout the semester, students will engage in acting exercises that teach concentration, listening, observation, relaxation, projection and articulation, stage movement, and character development.

Students may produce one or more small theatre pieces during the course of the semester.

### Theatre Production

220113 Theatre Pro Level: 3 Credits: 1.0

The course is taught as a practicum. Students learn by doing. There are three to four productions a year in which students must participate. Theory is taught through performance situations in addition to acting fundamentals of stage movement, voice, character development and basic technical theater work in lighting, set construction, make-up, costuming and stage properties. This course satisfies the Fine Arts credit requirements needed for graduation.

### Creative Writing I

220123 Creative Writing I Level: 3 Credits: 1.0

The Creative Writing course includes traditional and non-traditional writing in various

genres. The class receives practice in critiquing and being critiqued. In general, Creative Writing is a class that requires thinking skills and the willingness to share one's work.

Creative Writing I is a prerequisite for Creative Writing II. This is a class intended to instruct and inspire.

### **Creative Writing II**

220133 Creative Writing II Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Creative Writing I

Creative Writing II students must have successfully completed Creative Writing I. This class is intended for the serious writer. Assignments are more sophisticated than Creative Writing I with a spotlight on possibilities in the writing world. Creative Writing II students might broadcast special occasion readings, conduct a cross county workshop, serve as mentors to Creative Writing I students, and produce a literary magazine. If circumstances permit, students will participate in "class-to-work" internship.

This class is for a motivated wordsmith who wants to develop a style and consider a career direction.

### **Introduction to Publications**

220143 Intro to Publications Level: 3 Credits: 1.0

This course is designed as an introduction to the skills and knowledge needed to create a quality publication, including a school newspaper, an on-line school paper and a yearbook. Students learn about the legality, responsibility, history and philosophy of our evolving media. Students learn to write for different purposes and audiences, differentiate between, define and write feature articles, news articles, sports stories and editorials. Students learn the difference between writing for a yearbook and writing for a scholastic news publication. Students learn the basics of digital photography, including how to take effective photos, how to legally adjust and crop photos for publication, how to use photos to enhance layout. The course culminates with experiences in the technical production of a school paper, using publication software to lay out pages.

### **Newspaper Production**

220153 Newspaper Production Level: 3 Credits: 1.0  
Strongly recommended: Satisfactory completion of Introduction to Publications

In this course students publish the monthly issue of the school newspaper. Students research and write articles in a variety of formats. They adjust and crop digital pictures, scan images and lay out pages using a software design program. Students are responsible for all business aspects of the newspaper.

### **World Literature**

221113 World Literature Level: 3 Credits: 1.0

The study of world literature focuses on an awareness and understanding of various world cultures through the reading and analysis of short stories, poems, and plays. The course is study built on the various genres with an emphasis on universal themes in literature. Students see commonalities in themes from the Mediterranean, Europe, Africa, Asia, the South Pacific, South and Central America, North America, and Great Britain. In addition, students learn about the lives of various authors and how their lives impacted their writing. Students are required to read four full-length works that represent four geographical areas.

The format of the class is student-centered discussion along with essay and personal and reflective writing. Students are required to keep a writing journal.

Students practice skills in speaking and listening through a variety of classroom activities: discussion, group work, research and reports on required reading, and interpretative reading on assigned works. Research papers explore the commonalities in themes from various geographical areas.

Language conventions are taught as needed through writing. Vocabulary development is directly related to the literary selections.

### **Mythology**

220163 Mythology Level: 3 Credits: 1.0

This course introduces students to classical mythology with an emphasis on the Greek, Roman and Scandinavian stories about gods, heroes, creation, love and other universal emotions and conflicts. Students read and discuss *The Iliad* and *The Odyssey*, various myths, folk tales and plays. Selections will be examined to discuss their original contexts, their connections to Western civilization and modern artistic and literary usages.

Students will read independently and in groups to analyze the selections and to discuss content critically. They will listen to selections and analysis of selections by scholars, the teacher and their peers. Students will outline, summarize, and critique material to develop a core understanding of content knowledge.

Individual and group (small and large group) activities are employed to analyze and discuss the elements of myths and other selections; students apply these interpretations by creating a product to showcase their analyses. Projects include analyzing and retelling selections in writing, in presentation/production, in scrapbook memorabilia or other media formats. Activities and are designed to

develop reading, writing, analysis, speaking and listening skills.

### **Yearbook Production**

220173 (year long) Yearbook Prod Level: 3 Credits: 1.0  
221173 (Fall)  
222173 (Spring)

This class is directly responsible for the production of the high school yearbook. This class teaches students the basic principles of magazine style publication. Students gain practical knowledge of layout and advertising design and production; photography; photo editing; and research, interview, writing, and editing techniques for articles. Students also learn a variety of computer skills including: word processing, data base construction and management, and camera-ready graphics production techniques.

The class is activities based and product oriented. Students are directly involved in every aspect of publication production from planning to advertising sales, to actual production and even sales and distribution. Students earning credit in this class will have a sound knowledge base for finding employment in a variety of publications occupations and their related fields.

### **Communications Arts**

220182 Communications Arts Level: 2 Credits: 1.0

This course offers a broad survey of a variety of communications arts areas. Some of these include: interpersonal communications, nonverbal communications, speech and listening skills, basic radio and television production, advertising, and written communications - both creative and journalistic.

Students have the opportunity to apply some of these skills through educational access channel television productions, daily morning in-house radio broadcasts and cable television radio broadcasts, publication of a communications arts magazine, producing a variety of film productions for the Worcester Tech Fest and ongoing public service awareness programs.

### **Latin**

261133 Latin I Level: 3 Credits: 1.0  
262133 Latin II Level: 3 Credits: 1.0

Latin I – English language development owes much to the Latin language and the Roman culture. Over fifty percent of English vocabulary derives from Latin root words. Latin I is an introductory course which emphasizes Latin root words to improve vocabulary, grammar, and spelling. Students will gain a perspective of Roman culture. Knowledge of Latin vocabulary is applicable to a

variety of disciplines including biology, anatomy, psychology, history, English, and college-level reading.

Latin II – At the intermediate level, students continue the development of the previous skills. Students will expand their study of word derivation. They will also expand their understanding of the similarities and differences among languages and cultures.

**Latin I and Latin II do not satisfy the world language graduation requirements.**

## **SOCIAL STUDIES**

### **Government**

611103 Government Level: 3 Credits: 1.0

The primary goal of the government course is to give students the basic information they need in order to function as a citizen on the local, state, national, and international level. The course will acquaint students with the duties, responsibilities and structure of government and politics in the United States.

The course will take into consideration the importance of government education which is necessary to be an involved citizen who understands and supports democratic principles, institutions, and processes. The course will focus on the relationship between U. S. history, politics, government, and world history.

The major emphasis of the course evolves around student based activities, direct involvement through community based volunteerism, and indirect involvement through social and political activities.

Through the use of various activities (role-playing, game simulations, research, writing projects, field trips, etc.), students will learn about issues at the National, State, and local level and how they relate to a global perspective. Students will meet the service learning requirement and core learning goals.

### **World History**

612103 World History Level: 3 Credits: 1.0

This course is designed to help students become familiar with diverse civilizations and develop an understanding of the history which has culminated in current world situations. Students study at least one new European civilization in depth while surveying the history of humankind from the Renaissance to the present. Students examine the geographic, economic, and social conditions and their influence on the modern world. Students also study the concepts of industrialization, nationalism, revolution, and imperialism. In the final units, students focus on the modern world with an extensive review of (1) World War II and (2) the

Soviet economy, government and history followed by (3) an examination of present day world problems (the Middle East, Asia, Africa, and Europe). Students are expected to complete extended reading and writing assignments

### **United States History**

613103 U.S. History Level: 3 Credits: 1.0

This course is a chronological survey of United States History from 1877 to the present. Emphasis is given to the acquisition of skills so that students can evaluate social, economic, political, and diplomatic developments in the United States. Students are expected to complete extended reading and writing assignments. The ultimate goal of the course is to have students gain sufficient knowledge and understanding of the past so they will be better prepared as responsible adult citizens. This course satisfies the United States History course requirements for graduation.

### **Advanced Placement World History**

615224 AP World History Level: 4 Credits: 1.0

The Advanced Placement Program in World History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in World History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by introductory college courses. Students should learn to assess historical materials - their relevance to a given interpretive problem, their reliability, and their importance - and to weigh the evidence and interpretation presented in historical scholarship.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing.

This course is designed to prepare the student to take an advanced placement test and earn college credit in World History. This course satisfies the World History course requirements for graduation. **It is strongly recommended that students successfully complete Topics in World History, if offered, before taking this course.**

### **Advanced Placement American History**

613104 AP American History Level: 4 Credits: 1.0

The Advanced Placement Program in American History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in American History. The program

prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by introductory college courses. Students should learn to assess historical materials - their relevance to a given interpretive problem, their reliability, and their importance - and to weigh the evidence and interpretation presented in historical scholarship.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing.

This course is designed to prepare the student to take an advanced placement test and earn up to two semesters of college credit in American History. This course satisfies the U. S. History course requirements for graduation. **It is strongly recommended that students successfully complete Topics in United States History if offered before taking this course.**

### **Advanced Placement European History**

614104 AP European History Level: 4 Credits: 1.0

The Advanced Placement Program in European History is designed for qualified students who wish to complete studies in secondary school equivalent to college introductory courses in this field. In addition to a basic exposure to the factual narrative, the goals of the Advanced Placement Program in European History are to develop (a) an understanding of some of the principal themes in modern European History and (b) an ability to analyze historical evidence.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing.

This course is designed to prepare the student to take an advanced placement test and earn up to two semesters of college credit in European History. **This course does not satisfy the World History graduation requirement. It is strongly recommended that students successfully complete Topics in European History if offered before taking this course.**

### **Psychology**

623103 Psychology Level: 3 Credits: 1.0

This course is an introduction to the study of human behavior. The course content includes physiology of the nervous system, sensation and perception, states of consciousness, learning theory, motivation, emotion, personality, abnormal behavior, and developmental and social psychology.

## **Advanced Placement Psychology**

623104 AP Psychology Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Psychology

Advanced Placement Psychology is a course designed for college-bound students.

This course will be taught from a biological perspective with the emphasis being on understanding the physical origins of behavior. Students will apply their learnings to the following areas of study: sensation and perception; development; states of consciousness; learning and memory; thinking, language and intelligence; motivation and emotion; personality; abnormal behavior and therapy; stress and health; social behavior; and statistical reasoning in everyday life.

This course is designed to prepare the student to take an advanced placement test and earn up to two semesters of college credit in psychology.

## **SOCIAL STUDIES ELECTIVES<sup>3</sup>**

### **Service Learning Elective**

900103 Service Learning Level: 3 Credits: 1.0

Students in grades 11 and 12 are eligible to take the Service Learning Elective. This course provides an opportunity to perform unpaid volunteer services in the school and community. Completion of the course may earn credit toward satisfying the service learning graduation requirement. Students will be responsible for attending some after school classes in preparation for service, reflection, and completion of other academic requirements. Students will be responsible for arranging their own program, schedule, and transportation to the site. Parental permission is required to participate.

### **Topics in World History**

615223 Topics World History Level: 3 Credits: 1.0

Topics in World History is designed for qualified students who wish to complete studies in the secondary school equivalent to college introductory courses in this field. In addition to a basic exposure to the factual narrative, the goals of the Topics in World History are to develop (a) an understanding of some of the principal themes in World History and (b) an ability to analyze historical evidence.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing. **This course does not satisfy the World History graduation requirements.**

### **Topics in United States History**

615103 Topics US History Level: 3 Credits: 1.0

This course covers United States History from Colonial times to 1877. This course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in American History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by introductory college courses. Students should learn to assess historical materials and their relevance to a given interpretive problem, their reliability, and their importance and to weigh the evidence and interpretation presented in historical scholarship.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading.

**This course does not satisfy the U. S. History course requirements for graduation.**

### **Topics in European History**

615113 Topics European History Level: 3 Credits: 1.0

Topics in European History is designed for qualified students who wish to complete studies in the secondary school equivalent to college introductory courses in this field. In addition to a basic exposure to the factual narrative, the goals of the Topics in European History are to develop (a) an understanding of some of the principal themes in modern European history and (b) an ability to analyze historical evidence.

Because of the rigorous demands of this course, students will be expected to devote as much time as necessary to keep current with class assignments and class work. The class requires extensive out-of-class reading and writing. **This course does not satisfy the World History graduation requirements.**

### **Economics**

620103 Economics Level: 3 Credits: 1.0  
Prerequisite: Algebra I

This course is a survey of economic concepts, principles, and functions. Students will examine

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<sup>3</sup>A Departmental Academic Elective does not satisfy the Social Studies graduation requirement. This course counts toward graduation requirements as an elective only.

theories and then apply those theories to actual economic behavior. Microeconomic topics include supply and demand, production and consumption, and the economic role of government. Macroeconomic topics include measures of economic activity, the business cycle, money supply, and economic forecasting. International economic issues include trade policy, currency exchange, and international economic organizations. This course does not satisfy the World History graduation requirement.

## WORLD LANGUAGE

### French

261113	French I	Level: 3 Credits: 1.0
262113	French II	Level: 3 Credits: 1.0
263113	French III	Level: 3 Credits: 1.0
264113	French IV	Level: 3 Credits: 1.0

French I, II, III, IV - A sequence of courses designed to develop a student's ability to understand and use the French language with an ultimate goal of being able to communicate effectively in the target language. There is also an effort to acquaint the students with the cultures of French-speaking people. The four skills of listening, speaking, reading, and writing are emphasized throughout the sequence.

French I - An introduction to the French language and culture based on basic vocabulary and grammatical structures. Listening, speaking, reading, and writing skills are emphasized. General points of culture are studied.

French II - This course is a continuation of the development of the basic skills with more emphasis on speaking, listening, reading, writing, and culture. Much more vocabulary and many important foundational grammatical concepts are covered including present, future and past tenses in sentences. A wide variety of regular and irregular verb forms and adjectival forms are studied. This course is designated to give students a solid foundation in the French language.

French III - This is a continuation of the development of the four basic skills: reading, writing, listening, and speaking. Complex grammatical structures are included as well as much more vocabulary building. There is greater emphasis on building fluency in the target language in each of the four communication skills.

French IV - An ongoing continuation of fluency building in each of the four basic skills: reading, writing, listening, and speaking. Additional grammatical structures are included as well as the increased use of authentic materials. The course will culminate with the reading of a novel in the target language.

### Advanced Placement French

264114 AP French                      Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of French IV

Advanced Placement French is a program whose main objective is for students to achieve a high level of ability in listening, reading, speaking, writing, and cultural understanding. AP French focuses on cultural and literary content while emphasizing conversation and composition. The course is designed for students who are willing and capable of completing university level coursework. Students must be well prepared and have a high level of motivation and interest sufficient to complete independent, out-of-class assignments.

This course is designed to prepare students for the academic rigors of college work and to prepare students to take an advanced placement test in French language.

### Spanish

261123	Spanish I	Level: 3 Credits: 1.0
262123	Spanish II	Level: 3 Credits: 1.0
263123	Spanish III	Level: 3 Credits: 1.0
264123	Spanish IV	Level: 3 Credits: 1.0

Spanish I, II, III, IV - A sequence of courses designed to develop a student's ability to understand, use, read and write the Spanish language and to acquaint students with the Spanish culture.

Spanish I - An introduction to the four basic skills (listening, speaking, reading and writing). The most basic structure and vocabulary of the Spanish language and general points of Spanish culture are studied.

Spanish II - A continuation of the development of basic skills. Vocabulary is augmented and the study of verbs and grammatical structures intensified. General points of Spanish culture are studied.

Spanish III - A continuation of the four basic skills through intensive grammar drills, discussions, exercises in writing, and samples of Spanish writing.

Spanish IV - A polishing of the four basic skills (emphasis on conversation and writing) through grammar review, discussions and extensive exercises (oral and written) based on novels and short stories studied.

### Spanish For Careers

263323 Spanish for Careers    Level: 3 Credits: 1.0  
Prerequisite: Successful completion of Spanish I and enrollment in a program of study at Worcester Technical High School

This elective course is designed to prepare students enrolled in various career pathways at Worcester Technical High School, such as Allied Health Occupations or Protective Services, to communicate with Spanish-speaking persons in the

community during work-based learning and other employment experiences. The content emphasizes conversational Spanish in oral and written communication. Specific content will be determined based upon the career pathways of those enrolled in the course. This course is an elective credit and does not meet the World Language graduation requirement.

### **Advanced Placement Spanish**

264124 AP Spanish Level: 4 Credits: 1.0

Prerequisite: Satisfactory completion of Spanish IV

Advanced Placement Spanish is a program whose main objective is for students to achieve a high level of ability in listening, reading, speaking, and writing. The course is designed for students capable of doing college level coursework which contains cultural and literary content while emphasizing conversation and composition. Students must be well prepared and have a high level of motivation and interest sufficient to complete out-of-class reading and writing assignments.

This course is designed to prepare students to take an advanced placement test in Spanish language.

## **MATHEMATICS**

The Maryland State Department of Education requires three mathematics credits for graduation: at least one course in Algebra/Data Analysis, one course in Geometry and an additional course in mathematics. The Board of Regents of the institutions of the University of Maryland System require entering freshmen (beginning with the high school class of 2015) to have (4) mathematics credits, including Algebra I, Geometry, Algebra II and another course that uses non-trivial algebra. One core content mathematics course, (Algebra II or above) must be taken during the final year so the student does not lose the algebraic and numerical skills achieved in earlier courses. For a discussion of core content courses which meet the non-trivial algebra threshold, see page 25.

For maximum achievement on the SAT and college placement tests, the Worcester County Public School System recommends that students go beyond the three mathematics credits necessary for high school graduation and take at least one math course each of their four years in high school. (Many colleges have a preference for a math course in 12<sup>th</sup> grade.)

Currently students can substitute 1) a score of three (3) or better on the Advanced Placement Calculus (AB or BC) or Advanced Placement Statistics exam or 2) a score of five (5) or better on the International Baccalaureate Mathematical Studies

SL or IB Mathematics (SL or HL) exam for the HSA Algebra Data Analysis requirement.

### **Algebra I**

401113 Algebra I

Level: 3 Credits: 1.0

Algebra I serves as the primary foundation course for a student's pursuit of academic mathematics, science and STEM courses. Algebra I is designed to encourage students to pursue mathematics beyond the minimal requirement for graduation.

Topics of study include: real number system, polynomials, factoring, solving equations and inequalities, graphs, algebraic fractions, quadratic equations, matrices, data analysis and probability and is consistent with the Maryland Core Learning Goals 1 and 3 for the HSA Algebra/Data Analysis.

Algebra I is also offered in the middle schools. Middle school students, who pass the course and achieve a passing score on HSA Algebra/Data Analysis, will receive 1.0 high school mathematics credit.

Note: If a middle school student meets the criteria and receives the one unit of high school credit, the course grade will be included in the high school grade point average (GPA). A middle school student wishing to improve a course grade may retake Algebra I only in their freshman year of high school. The student will be awarded the middle school or high school Algebra I course grade, whichever is higher.

### **Geometry**

412113 Geometry

Level: 3 Credits: 1.0

Prerequisite: Satisfactory completion of Algebra I

Geometry includes the study of properties of shapes consistent with the Maryland Core Learning Goal 2. Inductive reasoning, proofs using deductive logic and constructions are incorporated in the discovery of angle relationships and properties of specific polygons and circles. Additional topics include points, lines and planes, parallelism, transformation, coordinate geometry, congruence, right triangles, similarities, areas of plane figures, and surface areas and volumes of solid figures. SAT I Math assesses skills consistent with concepts in Geometry.

### **Accelerated Geometry**

412123 Accelerated Geometry Level: 3 Credits: 1.0

Prerequisite: Satisfactory completion of Algebra I. This course may not be offered in all schools.

Accelerated Geometry represents a theoretical approach to the study of geometry with emphasis on formal proofs and is consistent with Maryland Core Learning Goal 2. Topics include: points, lines and planes, parallelism, congruence, similarities, polygons, transformation, coordinate geometry, areas of plane figures, areas and volumes of solid figures, circles and constructions. This rigorous course is recommended for college bound math, engineering, and science majors. This course may not be offered in all schools.

## **Algebra II**

401143 Algebra II Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra I

Algebra II is an extension of Algebra I and includes, but is not limited to topics involving linear equalities and inequalities, quadratic equations, absolute value, systems of linear equations, graphs of equations and inequalities, transformations, sets of real numbers including rational and irrational numbers and the complex number systems, rational and real number exponents, radical expressions, and exponential functions.

Two and four year colleges expect students to have completed Algebra II in order to begin college level mathematics courses. SAT I Math assesses skills consistent with concepts in Algebra II.

## **Algebra II, Part 1**

401153 Algebra II, Part 1 Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra I

Algebra II, Parts 1 and 2 together cover the same topics listed under Algebra II, but spread the topics over two semesters for a pace that is more suited for individual and group explorations of topics. Topics in Algebra II, Part 1 may include, but are not limited to, real and complex number systems, linear equations and inequalities and quadratic equations.

Two and four year colleges may expect satisfactory completion of Algebra II. Completion of Algebra II, Part 1 alone will not adequately prepare students for the SAT I Math.

## **Algebra II, Part 2**

401163 Algebra II, Part 2 Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra II, Part 1

Algebra II, Parts 1 and 2 together cover the same topics listed under Algebra II, but spread the topics over two semesters for a pace more suited for individual and group explorations of topics. Topics not covered in Algebra II, Part 1 and are covered in Algebra II will be the focus of Algebra II, Part 2. These topics may include transformations, rational

and real number exponents, radical expressions, and exponential functions.

Two and four-year colleges expect students to have completed Algebra II in order to begin college level mathematics courses. SAT I Math assesses skills consistent with concepts in Algebra II.

## **Accelerated Algebra II**

401173 Accel Algebra II Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra I. This course may not be offered in all schools.

Accelerated Algebra II is designed for the entering ninth grade student aspiring to complete high school mathematics through Calculus. The course is intended to provide a more in-depth study of the Algebra II topics with a greater emphasis on critical thinking. Additional topics beyond Algebra II which are studied in Accelerated Algebra II include: recognizing hierarchy of number sets, Cramer's Rule, polynomial equations and inequalities, equations and inequalities with fractional coefficients, synthetic division, Descartes' Rule of Signs, enrichment activities and real world applications.

Two and four year colleges expect students to have completed Algebra II in order to begin college level mathematics courses. SAT I Math assesses skills consistent with concepts in Algebra II.

## **Algebra III**

403103 Algebra III Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra II or Algebra II, Part 2 and Geometry

Algebra III is an in-depth study of advanced concepts which includes, but are not limited to, quadratic equations and functions, polynomial equations, logarithmic functions, matrices, conics, combinatorics, probability, sequences and series. Emphasis is placed on developing an analytical approach to problem solving and applications. This course is recommended for, but not limited to students interested in studying Calculus and pursuing a STEM-related major or career. College Algebra and Trigonometry may not be substituted.

## **Trigonometry**

413103 Trigonometry Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra II or Algebra II, Part 2 and Geometry

Trigonometry provides an in-depth study into the relationships of sides and angles of triangles. Trigonometric functions, circular functions, trigonometric identities, vectors, matrix representations of rotations, polar coordinates and trigonometric representations of complex numbers are among the topics of study. Emphasis is placed on applications of trigonometric functions and related

mathematical topics. College Algebra and Trigonometry may not be substituted.

### **College Algebra and Trigonometry**

400104 College Alg/Trig Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Geometry and Algebra II or Algebra II, Part 2.

This college level course provides an opportunity for students to survey and investigate topics in advanced algebra, trigonometry and analytic geometry. Students will investigate the following topics: linear and quadratic equations and applications, inequalities and applications, functions, inverses, graphs and applications, parabolas, ellipses and hyperbola, circles, rational functions and graphs, asymptotes, exponential and logarithmic functions, triangular and circular trigonometry, trigonometric identities, the Laws of Sines and Cosines, linear, conic, power, exponential, logarithmic and trigonometric (right triangle and circular) functions, odd or even functions, and inverse syntheses, and addition, subtraction, multiplication and exponential and composition functions. Students may earn academic credit at Wor-Wic Community College upon successful completion of this course.

### **Data Analysis/Statistics**

411103 Data Analy/Statis Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Geometry and Algebra II or Algebra II, Part 2

This course provides students with an introduction to concepts and applications associated with the study of statistics and data analysis. Descriptive statistics include data organization, expectation, and measures of variation. Also covered are random variables, probability laws, counting techniques, binomial and normal distributions, applications to the Central Limit Theorem, confidence intervals and tests of statistical hypotheses involving the mean and proportions. One and two sample tests with dependent and independent samples are examined and topics from linear regression and analysis of variance are introduced. Topics from parametric and non-parametric statistics are introduced.

### **Calculus**

424103 Calculus Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra III and Trigonometry or College Algebra and Trigonometry

Calculus is designed to provide students with initial preparation for the Advanced Placement Calculus AB course or a Calculus course in college.

Topics include functions, limits and their properties, differentiation, and application of differentiation.

### **Advanced Placement Calculus AB**

424104 AP Calculus AB Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Calculus. It is strongly recommended that students have a separate course in Algebra III and a semester of Trigonometry.

Advanced Placement Calculus AB is a college level course with topics which include functions, limits and continuity, derivatives, integration, and the applications of these topics. The course is designed to prepare the student for the College Board's Advanced Placement Calculus AB test and possibly earn credit in college level Calculus.

### **Advanced Placement Calculus BC**

424114 AP Calculus BC Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Advanced Placement Calculus AB

Advanced Placement Calculus BC is a rigorous extension of the work begun in Advanced Placement Calculus AB and covers additional topics including vector functions, parametrically defined curves, polar functions, and convergence of sequence and series. The course is designed to prepare the student for the College Board's Advanced Placement Calculus BC test and possibly earn credit in college level Calculus II.

### **Advanced Placement Statistics**

434104 AP Statistics Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Data Analysis/Statistics. It is recommended that students have Algebra III

The purpose of the Advanced Placement Statistics course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inference. Students who successfully complete the course and pass an advanced placement test may receive college credit and/or advanced placement for a one-semester introductory college statistics course.

**University of Maryland System Minimum Core Content Proficiency Requirements for Regular Admissions  
(New Requirements for Class of 2015)**

In addition to other requirements for admissions, high school seniors or graduates must demonstrate their readiness for college-level work by achievement at the appropriate level of competencies in the core content associated with the array of courses that follows. A grade equivalent to a C or better in required courses would normally demonstrate the minimum level of preparation for college-level work.

<b>Subject Area</b>	<b>Specific Credit Requirements</b>	<b>Comments</b>
<b>English</b>	4 credits	
<b>Biological and Physical Sciences</b>	3 credits	(The courses completed must be in at least two different subject areas. Two of these must include a laboratory experience. For students interested in Science, Technology, Engineering or Mathematics (STEM) related careers, (such as medicine, engineering, the sciences, veterinary medicine, physical therapy, etc.) four years of science are recommended in three different science areas, with three laboratory experiences)
<b>Mathematics</b>	4 credits (Must include Algebra I, Geometry, and Algebra II)	Students who complete Algebra II prior to their final year must complete the four-year mathematics requirements by taking a course or courses that use non-trivial algebra. Non-trivial algebra is intended to mean that the levels of mathematical concepts discussed and the level of problems that are used in the course would be at least as sophisticated as those that relate to problems appearing in the Achieve ADP Algebra II test. Examples of courses meeting this requirement include Algebra II, Trigonometry, Pre-Calculus, Calculus and successor courses, Statistics and College Algebra. An important feature of any such course is that it utilizes algebra in a substantive way, so the student does not lose the algebraic and numeric skills achieved in earlier courses.
<b>Language other than English or in some instances, Advanced Technology Education electives</b>	2 credits	The two non-English courses must be in the same language. American Sign Language is among the language accepted. Advanced Technology is an instructional program in which students develop in-depth skills and understanding related to one or more of the following: impacts of technology; technology issues, and engineering design. At the time this policy was approved, Advanced Technology Education electives are acceptable in lieu of language at the following institutions: Bowie State University, Coppin State University, Frostburg State University, the University of Baltimore, and the University of Maryland Eastern Shore. Students should consult the admissions office at the UMS institution they are seeking admission to attend to determine if advanced technology is accepted in fulfillment of this requirement.

**MATHEMATICS ELECTIVES<sup>4</sup>**

## College Preparatory Math Review

454113 Col Prep Math Review Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra I, Algebra II or Algebra II, Part 2 and Geometry

This course will review concepts and skills in Algebra and Geometry associated with Maryland Core Learning Goals 1, 2, and 3 in mathematics. Completion of this course will provide students with a better opportunity for success on college placement tests such as the SAT I Math and ACT, and college diagnostic math tests generally given to college freshmen as an entrance requirement. Completion of this course should give students a stronger background for the freshman year in college in mathematics for students pursuing a non-calculus-based program of study.

## Foundations of Algebra

411112 Found Algebra Level: 2 Credits: 1.0

Foundations of Algebra is an Algebra I support course offered in the fall semester for students who need to acquire deeper understanding of skills necessary for success in Algebra I. It does not substitute for Algebra I. It is designed to provide additional mathematical foundations for the continuing Algebra student and to increase student competencies in the Maryland Core Learning Goals 1 and 3 (Algebra Functions and Data Analysis and Probability). Students studying Foundations of Algebra will receive elective credit only. Foundations of Algebra will NOT satisfy the high school graduation requirement for one credit in fundamental algebraic concepts. Students will take the MSA/HSA in Algebra/Data Analysis at the end of a course in Algebra I.

## Advanced Placement Computer Science

464104 AP Computer Science Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Advanced Computer Science

This course is an extension of Advanced Computer Science. The course is designed to prepare students to take an advanced placement test and earn college credits in Computer Science. The required programming language will be specified by Educational Testing Service.

## SCIENCE

In order to graduate, every student must successfully complete one course in Biology and two courses in other sciences - Earth, Life, Environmental or Physical Science. It is recommended that college bound students with interest in technology, engineering, and life sciences elect Chemistry and Physics.

## Physical Science: Physics/Technology

533113 Physics/Tech Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra I

Physical Science: Physics/Technology is designed to introduce facts, principles and laws from physics. An overview of Maryland's Core Learning Goals and the VSC in Technology Education will be used for assessment purposes. Topics include motion, force, energy, wave motion (light and sound), electricity and magnetism and Optics. This course will also include an introduction to directed laboratory experiences. It provides an introduction to these concepts with dependence on computation using Algebra. This course satisfies the Maryland Technology Education graduation credit or a science credit.

## Biology

512103 Biology Level: 3 Credits: 1.0  
Recommended Sequence: Satisfactory completion of Environmental Life Sciences, Physical Science: Chemistry or Physical Science: Physics/Technology

High School Biology is an introductory study of living things and their environment. Topics include: the relationship between the structure and function of biologically important molecules and their relationship to cell processes; how all organisms are composed of cells which can function independently or as part of multicellular organisms; how genetic traits are inherited and passed on from one generation to another; and, the interdependence of diverse living organisms and their interactions with the components of the biosphere.

## Biology I, Part 1

512113 Biology I, Pt. 1 Level: 3 Credits: 1.0  
Recommended Sequence: Satisfactory completion of Environmental Life Sciences

Completion of Biology I, Parts 1 and 2, together, substitute for Biology I. It is designed to encourage students to pursue Biology beyond the minimal requirement for graduation. Topics covered in Biology I, Part 1 includes biochemistry, cell structure and function, and genetics.

This course begins the study of Biology associated with Core Learning Goal 1 (Skills and Processes) and Goal 3 (Expectations 1, 2, and 3). However, since completion of Biology I, Part 1

<sup>4</sup>A Departmental Academic Elective does not satisfy the mathematics graduation requirement. These courses count toward graduation requirements as an elective only.

represents a partial study of Biology I, the high school assessment in Biology will NOT be administered until the student has completed Biology I, Part 2 or Biology I. Parts 1 and 2 together fulfill the high school graduation requirement.

### **Biology I, Part 2**

512123 Biology I, Pt. 2 Level: 3 Credits: 1.0

Continuing to build on the foundation of Biology I, Part 1, this course addresses Core Learning Goals 1 (Skills and Processes) and Goal 3 (Skills 4, 5, and 6). Topics covered in Biology I, Part 2 are mechanisms of evolutionary change, interdependence of diverse living organisms and their interactions with the components of the biosphere and biological issues. Upon completion of Biology I, Part 2, students will have completed Biology I and will take the high school assessment in Biology.

### **Accelerated Biology**

513103 Biology Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Chemistry and Biology. Zoology is highly recommended.

Accelerated Biology is an in-depth study of molecular and cellular biology to prepare students for Advanced Placement Biology. Topics to be studied include: Organic chemistry, bioenergetics, molecular genetics, cytology, and genetic engineering.

This course may include the dissection of preserved animal specimens. Alternative activities are provided should the student or parent request non-participation. The parent should submit a written request for the alternative activities to the course instructor.

### **Advanced Placement Biology**

514104 AP Biology Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Accelerated Biology

This is a college level course in Biology. The course is designed to prepare students to take an advanced placement test and earn up to eight college credits in Biology. Students are required to perform all of the twelve laboratory exercises (3 hours each) some of which may extend beyond the school day.

This course may include the dissection of preserved animal specimens. Alternative activities are provided should the student or parent request non-participation. The parent should submit a written request for the alternative activities to the course instructor.

### **Physical Science: Chemistry**

521113 Phys Science: Chem Level: 3 Credits: 1.0  
Recommendation: Satisfactory completion of Algebra I

Physical Science: Chemistry is designed to introduce facts, principles and laws from chemistry. An overview of Maryland's Core Learning Goals 1 and 4 will be used for assessment purposes. Topics include atomic and nuclear structure, chemical bonding and chemical reactions, solutions, and organic chemistry. This course will also include an introduction to laboratory experiences. It provides an introduction to these concepts without a strong dependence on computation.

### **Environmental Life Sciences**

543123 Env. Life Sciences Level: 3 Credits: 1.0  
Prerequisite: 9th grade student

This course deals with the environment from a biological perspective. The goal of this course is to prepare students to take Biology. Topics in this course will include: natural cycles, evolutionary change, degree of relatedness of organisms, and interdependence of living and nonliving components of the ecosystem. This is a laboratory class with a minimum of two labs per month. This course satisfies the Maryland Environmental Literacy Graduation requirement.

### **Chemistry**

522103 Chemistry Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra I

This course is a theoretical/mathematical approach to the study of chemistry. Topics include: atomic theory, the structure of matter, chemical bonding, the periodic table, kinetic molecular theory, solutions, redox reactions, chemical calculations and basic stoichiometry. Emphasis will be placed on the theoretical and mathematical interpretation of laboratory investigations. This course is strongly recommended for the college bound student.

### **Accelerated Chemistry**

523103 Acc Chem Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Chemistry I

Accelerated Chemistry is an extension of Chemistry I. In high schools offering both courses the curriculum may be spread out over a two-year period to provide an in-depth study and increased laboratory experience. This course is strongly recommended for students planning careers in Math, Science, Engineering or Medicine.

### **Accelerated Physics**

534103 Acc Physics Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Trigonometry. Completion of Physics is helpful but not required.

Accelerated Physics is a semester long course preparing the student for the Advanced Placement Physics B course. The content will include; Linear motion in one and two dimensions; Gravitational, electrostatic, and contact forces and fields; Energy and momentum; Fluids; Charge conservation and simple circuits; Wave motion; and Thermodynamics. Significant emphasis will be placed on interpretation of laboratory data.

### **Advanced Placement Chemistry**

524104 AP Chemistry Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Accelerated Chemistry

This is a college level Chemistry course. This course designed to prepare students to take an advanced placement test and earn college credit in Chemistry.

### **Physics**

533103 Physics Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Algebra II and Geometry

This course represents a theoretical and mathematical approach to the study of classical physics. The four basic areas are mechanics or motion, thermodynamics, wave motion (to include light), and electricity and magnetism. Emphasis will be placed on interpretation of original laboratory data. Physics is strongly recommended for the highly motivated, math able, college bound student.

### **Advanced Placement Physics B**

533104 Physics Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Accelerated Physics

This is a college level Physics course offered only at Worcester Technical High School that serves as the foundation in physics for students intending to major in the physical sciences or engineering. It is designed to prepare students to take an advanced placement test and earn college credit for Physics. The class will consist of; Torque and angular motion; Electric and magnetic fields and forces; Electric potential; Angular momentum; Induced electric and magnetic properties; Multi-loop circuits with capacitors; Energy in atomic transitions; Mass-energy conservation; Interference and diffraction; Reflection and refraction; Wave and particle models of electromagnetic radiation; and Quantum mechanical descriptions of the microscopic world.

### **Botany**

513123 Botany Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Biology

Botany involves the study of plant taxonomy, structure, and function of plant parts and practical uses of plants, hazardous plants, pests and pesticides relative to our local area and general horticulture. Lab activities and field trips are included.

### **Environmental Science**

543103 Environmental Science Level: 3 Credits 1.0  
Prerequisite: Satisfactory completion of Biology or Chemistry

This course deals with ecology; the study of how life interacts with its environment. Man's effects on the environment will be traced from the days of the early cave man to the present. Field studies will be conducted to examine the plants and animals of various ecosystems. Also the effects of various chemicals on the environment will be studied. This course satisfies the Maryland Environmental Literacy Graduation requirement.

### **Advanced Placement Environmental Science**

544104 AP Envir Science Level: 4 Credits 1.0  
Prerequisite: Satisfactory completion of a course in Chemistry, Biology

The AP Environmental Science course is designed to be the equivalent of a one semester, introductory college course in Environmental Science. The goal of the course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. This course is designed to prepare students to take an advanced placement test and earn college credit in Environmental Science. This course satisfies the Maryland Environmental Literacy Graduation requirement.

### **Marine Biology**

513113 Marine Bio Level: 3 Credits: 1.0  
Satisfactory completion of Chemistry and Biology is strongly recommended

Marine Biology involves the study of selected groups of marine plants and animals to develop an understanding of biological marine principles. Topics will include the marine environment, adaptations of marine life, and the effect of humans on the marine ecosystem.

This course may include the dissection of preserved animal specimens. Alternative activities are provided should the student or parent request non-participation. The parent should submit a

written request for the alternative activities to the course instructor. This course satisfies the Maryland Environmental Literacy Graduation requirement.

### **Zoology**

513133 Zoology Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Biology or Chemistry

This course is recommended for those students planning to take the Accelerated Biology/Advanced Placement Biology sequence. Zoology is a life science elective designed to meet the needs of college bound students. Current issues in Biology are studied, including: the Kingdom of Animals, Human Anatomy and Physiology, Evolution, Ecology, and Biotechnology. Due to the challenging nature of this course, students are expected to keep current with the reading and written work.

This course may include the dissection of preserved animal specimens. Alternative activities are provided should the student or parent request non-participation. The parent should submit a written request for the alternative activities to the course instructor.

### **Earth and Space Science**

543113 Earth/Space Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of a course in both Chemistry and Biology

The Earth and Space course will have students use a variety of resources to identify techniques used to investigate earth and the universe. Students will study the natural forces affecting earth's weather and climate. The earth's surface and theory of plate tectonics will be used to explain the dynamic nature of earth's crust.

## **VISUAL ART**

### **Art I**

111103 Art I Level: 3 Credits: 1.0

Art I is an introduction to the visual arts through the study of major historical periods and its representative styles, media, and artists. Classwork will include related reading, note taking, assessment, and the exploration of the elements of art and principles of design through project work.

### **Art II**

112103 Art II Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Art I

Art II is an extension of the elements and principles introduced in Art I. This course is

intended to increase students' higher-level thinking skills, technical proficiency, and ability to apply these skills to personal expression. Students may be required to complete projects outside of class, and will be asked to keep a sketchbook/journal.

### **Advanced Art**

113103 Advanced Art Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Art II

This course allows students to advance their study of art, and, if so desired, to enroll in Advanced Placement Studio Art. Students will build a comprehensive portfolio of artwork and will be required to complete projects outside of class. Works may be a variety of or a collection of mediums, subject matter and/or themes.

Advanced Art is offered for students seriously interested in pursuing a possible career in visual art. Emphasis is on refining techniques, developing personal style, medium specialization, and portfolio presentation.

If the student enrolls in Advanced Placement Studio Art, work completed in this course may be used for completion of the portfolio requested for the Advanced Placement Studio Art exam.

This course may be repeated for credit.

### **Advanced Placement Studio Art**

114104 AP Studio Art Level: 4 Credits: 1.0  
Prerequisite: Satisfactory completion of Advanced Art

This course is designed for those students in grades 11 and 12 who wish to pursue completion of a portfolio to be submitted for college credit. This is achieved through a comprehensive study in which the student utilizes a variety of materials and demonstrates techniques based on The College Board Advanced Placement Program in Studio Art. A student must choose one genre in which to complete a portfolio: studio drawing, two-dimensional art, or three dimensional art. Students who expect to earn college credit for this course should plan on a two-year study that begins in Advanced Art to complete the portfolio. A portfolio review and pre-enrollment conference with an art instructor is strongly recommended.

### **Utilitarian Art Forms**

112113 Art Forms Level: 3 Credits: 1.0

Utilitarian Art Forms, an introduction to the visual arts, is an exploration of a variety of utilitarian and decorative arts produced by artisans and

craftsmen from around the world. This course is intended to provide hands-on experiences which emphasize cultural appreciation and personal expression. Students will increase their ability to refine and apply knowledge and skills in a variety of forms. Emphasis is placed on the creation of quality products of increasing difficulty within each unit of study. Classwork will include related reading, note taking, assessment, and the exploration of the elements of art and principles of design through project work. Students may be expected to provide their own materials for advanced projects.

### **Design and Photography I**

113123 Design & Photo I Level: 3 Credits: 1.0

This course is open to 10th, 11th, and 12th grade students only. It serves as an introduction to the elements and principles of design and the basic concepts of black and white film photography. The students will become familiar with black and white film development and darkroom techniques and procedures. This course will emphasize compositional guidelines that serve as the basis for quality art and photography. The students will also become familiar with the history of photography, complete research, and design a Power Point presentation. The students will explore various mediums and techniques and develop skills when utilizing these materials. It is beneficial for students to have their own manual 35 mm SLR camera and may have to provide other materials.

### **Design and Photography II**

114123 Design & Photo II Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Design and Photography I

This course is designed for students seriously interested in developing and refining their artistic talents in the areas of design and photography. This course is an expansion of the "Design and Photography I" course. Emphasis is placed on refining each student's technical expertise of camera handling, selection of subject matter, composition, film development, printing, and presentation of the finished print. Experimental methods are explored and portfolios developed. Students are expected to have their own 35 mm SLR camera with light meter and flash and may have to provide materials for selected projects. Alternative forms of photography such as 2 1/4 photography, digital photography, and flash photography may also be explored.

The design aspect of the course will be art projects that augment the photography component - dealing with composition, its guidelines, and artistic creativity. These projects will be the classwork for each student when he/she is not developing film, printing, hand-coloring prints, or matting prints.

This course may be repeated for credit.

### **Photography**

112133 Photography Level: 3 Credits: 1.0  
This course may not be offered in all schools.

Photography explores the basic principles and practices of 35 mm black and white production techniques. Included in the study are camera functions and operation, subject matter, composition, film developing, print development, print presentation, chemical use, flash photography, experimental photography and some digital photography. Darkroom techniques and material maintenance will be emphasized. Students are expected to supply their own manual 35 mm SLR camera. Students may be required to provide their own materials from time to time.

### **Advanced Placement Art History**

115104 AP Art history Level: 4 Credits: 1.0

This course is designed as an introductory college course in art history and will provide high school students with the same opportunities as those students who enroll in such a course on the college level. This course will require a high degree of commitment to academic work and students will be expected to meet the rigors of college standards. This course will provide the students with the opportunity to examine major forms of artistic expression from the past and present from a variety of cultures. Students will develop an appreciation and understanding for architecture, sculpture, painting and other art forms within historical and cultural contexts. They will learn to look at works of art critically, with intelligence and sensitivity, and to analyze what they see. Many colleges and universities offer advanced placement and/or credit to students who have performed successfully on the AP History of Art examination.

## **MUSIC**

### **American Popular Music**

121103 Amer Pop Music Level: 3 Credits: 1.0

During this course, students will study composers, performers, and works of American Popular Music. Units are organized by decade from

1900 to the present. Students will examine the relationship that exists between the culture and history of the decade and its music. Each student will also be expected to choose particular styles of American Popular Music and complete research projects addressing the chosen styles.

### **Band**

120103 Band (year long) Level: 3 Credits: 1.0  
120143 (Fall)  
120153 (Spring)  
Prerequisite: Elementary and middle level instruction and proficiency in playing grade III music

Band emphasizes participation in all phases of instrumental music such as field shows, parades, concerts, school assemblies, festivals and community performances. All band members are eligible to audition for jazz ensemble, pep band and other smaller groups. This course may be repeated for credit.

### **Concert Choir**

122113 Concert Choir Level: 3 Credits: 1.0

Membership in Concert Choir is based on student interest and desire to participate in choral music. Emphasis is placed on performance of standard choral music. Students will develop the ability to understand, perceive, create, respond, and appreciate a variety of choral music. Students will participate in public performances such as concerts, holiday programs, and/or community functions. To be offered as a Level 3 course, the Concert Choir will need to represent the school in outside school functions, and be encouraged to audition for regional and/or state choral ensembles. When possible, Level 3 Concert Choir will participate in an adjudication activity. This course may be repeated for credit.

### **Show Choir**

120123 Show Choir Level: 3 Credits: 1.0

Students enrolled in this course will develop and refine performance skills related to advanced music. Students will sing and dance in a select ensemble. A variety of choral literature will be utilized to assist students in refining the ability to understand, appreciate, perceive, create, and respond to music. Students will be expected to participate in a variety of performances outside the school day and will be encouraged to audition for regional and/or state choral ensembles. When possible, Show Choir will participate in an adjudication activity. This course may be repeated for credit.

### **Advanced Musicianship**

124103 Adv. Music Level: 3 Credits: 1.0  
Prerequisite: Participation in Band or Chorus

Students enrolled in this course will be involved in advanced small group ensembles such as Woodwind Quartets, Brass Ensembles, Vocal Groups, and Piano Groups. The primary purpose of this course will be to advance the proficiency of students who are performing at a level beyond that of the high school band or chorus. Piano ensembles will perform from a beginning level. Music performed will be of a more classic or traditional nature. Students electing the vocal or band ensemble portions of this course will be required to audition for All Shore and/or All State Band or Chorus.

### **Music Theory I**

123113 Music Theory I Level: 3 Credits: 1.0  
Prerequisite: One year of music performance at the secondary level

Music Theory I explores the beginning fundamentals of music. These fundamentals will include elements of pitch, harmony, key, melodic dictation and rhythm. Students will be involved with conventional musical analysis, part writing and composition. The course will culminate into a final composition project.

### **Music Theory II**

124113 Music Theory II Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Music Theory I

Music Theory II continues the skills developed in Music Theory I. In addition, students will learn advanced musical form, advanced harmonies, detailed analysis, advanced progressions, arranging, melodic dictations, and non-conventional notations. This course will culminate in a final composition/arranging project.

### **Band Front/Majorette**

120132 Bandfront/Majorettes Level: 2 Credits: 1.0

Band Front/Majorette is designed for students who are interested in being a part of one of the marching band auxiliary units. These units include majorettes, color guards, swing flags, batons and rifles. The class usually meets during the same period as band. Emphasis is on skills necessary for successful performances.

### **Jazz Ensemble**

124123 Jazz Ensemble Level: 3 Credits: 1.0  
Prerequisite: Elementary and middle level instruction and proficiency in playing grade III music

Jazz Ensemble is a course designed for students with an interest in learning to play and perform jazz

music. A basic understanding of notation and rhythmic reading is required. Emphasis is placed on the history of jazz and solo improvisation. Students enrolled in this course will develop and refine performance skills related to advanced music. To be offered as a Level 3 course, the Jazz Ensemble will meet to represent the school in outside functions and be encouraged to audition for regional/state ensembles. When possible, Level 3 Jazz Ensemble will participate in an adjudication activity.

### **Orchestra**

121123 Orchestra Level: 3 Credits: 1.0  
Prerequisite: Elementary and Middle Level String Instruction

High school orchestra focuses on combining technical skills, expression, and historical information to perform both historic and contemporary literature for the string orchestra. Membership in orchestra is based upon student experience, knowledge of the instrument, and the desire to participate in a classically based ensemble. Students must have control of the basic fundamentals of their instrument and be advanced enough to perform literature on the high school level.

## **MILITARY SCIENCE**

### **Naval Science**

Naval Science is designated by the Chief of Naval Education and Training as a four-year (versus a four-semester) program and is intended to be taken one course per year in each of the four high school years, 9-12. Taking more than one Naval Science course in a school year is strongly discouraged and must have the prior approval of the Naval Science instructor before it will be allowed. Approval will not be granted to students starting Naval Science in their freshman year.

#### **Naval Science I**

131103 Naval Science I Level: 3 Credits: 1.0

Naval Science I introduces students to the precepts of citizenship, the elements of leadership, and the value of scholarship in attaining life goals. This course is also designed to engender a sound appreciation of the heritage and traditions of the United States of America with a focus on the historical significance of sea power. An emphasis on the development, in each cadet/student, of a sense of pride in his/her community, school, unit, associates, and self is a predominant theme throughout the course. These elements are developed from a fundamental level.

#### **Naval Science II**

132103 Naval Science II Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Naval Science I or approval of instructor

Naval Science II builds upon the foundation begun during Naval Science I, to further develop the traits of leadership, citizenship, discipline, and self-confidence that form the basis of the Naval JROTC program. In addition to classroom exposure to leadership and management skills, the course examines U. S. Naval History from 1815 to World War I, and U. S. Government concepts that are related to a citizen's rights and responsibilities. The technical aspects of the course include ship construction, oceanography, navigation, small boat seamanship, and naval weaponry. As in Naval Science I, the themes of pride in self, community, and school will permeate the course. Simultaneously, service and leadership will be stressed. These elements are developed from the advanced level.

#### **Naval Science III**

133103 Naval Science III Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Naval Science II or approval of instructor

Leadership is the paramount topic in the Naval Science III course. In addition to continued stress being placed upon the Fundamentals of Democracy and U. S. Naval History, the students/cadets are introduced to the vital importance of military justice, international law, and national security. The course continues the instruction on Naval Science to include astronomy, meteorology, weather, navigation and maneuvering, and sea power. The course will include reading, writing, and practical exercises.

#### **Naval Science IV**

134103 Naval Science IV Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Naval Science III or approval of instructor

Naval Science IV is the culmination of the Naval Science program. As in Naval Science III, leadership is the primary emphasis in Naval Science IV. It is a leadership lab course. Naval Science IV cadets (high school seniors) will attend class with new Naval Science I students and practice leadership skills during military drill periods under the close supervision of the instructors. During academic periods, Naval Science IV students will pursue a rigorous course of study in leadership techniques, effective communication, and group dynamics. Naval Science IV students are expected to be role models for all Naval Science students. The course will include reading, writing, and practical exercises

tailored to both college and non-college bound students.

### **Drill Team**

130103 Drill Team Level: 3 Credits: 1.0

This course is open to members of the Naval Junior ROTC at all grade levels. Instructional emphasis is on developing individual proficiency in armed and unarmed drill, progressing to team integration. After standard drill proficiency is developed, exhibition drill is introduced. Practical and written examinations are given to measure individual and team progress. Class time is used to develop specific routines and practice for parades, competitions, and special events. Students are required to attend performances, some of which may be outside of the regular school day. Additionally, this course helps to develop student leadership in the NJROTC program. This course may be repeated for credit.

## **MARINE CORPS JUNIOR ROTC**

### **Leadership Education**

Open to students of all grades, this course is designed to provide leadership education through the use of readings, classroom lectures, guided discussions and practical experience. The value and importance of self-discipline and individual responsibility as keys to success in life are stressed. The curriculum is composed of five major categories: Leadership, Citizenship, Personal Growth and Responsibility, Public Service and Career Exploration, and General Military Subjects. First year students are introduced to the 14 traits of leadership as well as the importance of teamwork in achieving group objectives. Those students who choose to return for a second, third, or fourth year of Leadership Education will study more advanced topics in leadership, with the focus of instruction shifting from classroom presentations to practical application as students are promoted in rank and demonstrate their leadership abilities while assigned to various billets within the cadet company organization.

The General Military Subjects category of the curriculum contains instruction and practical application in Close Order Drill (marching), physical fitness, and marksmanship (using Daisy air rifles). An understanding of the role of the military in a democratic society is developed through the study of U.S. military history, chain of command, organizational structures, and orientation trips to nearby military installations or historical sites.

Students will be issued cadet uniforms, which are worn one day each week. Students are also

required to conform to Marine Corps grooming standards. Students must not have any physical or medical condition that precludes their participation in rigorous physical conditioning. Completion of this course does not obligate the student to military service.

### **Leadership Education I**

141103 LE I Level: 3 Credits: 1.0  
(Pocomoke and Snow Hill schools only)

This course introduces the students to the fundamentals of leadership and discipline. Students are expected to master Marine Corps Junior ROTC unit organizational structure, cadet rank structure, an overview of Marine Corps history, and introductory leadership topics. Wearing the cadet uniform once a week and maintaining grooming standards are required. In addition to close order drill, emphasis is placed on physical fitness and marksmanship. Participation in community service projects is encouraged. Extracurricular activities include Drill Team, Color Guard, and Marksmanship Team.

### **Leadership Education II**

142103 LE II Level: 3 Credits: 1.0  
(Pocomoke and Snow Hill schools only)  
Prerequisite: Satisfactory completion of Leadership Education I

Leadership instruction continues with such topics as the objectives of leadership, the eleven principles of leadership, and the role of officers and noncommissioned officers within the military. Map reading and land navigation, Naval terminology, and the study of Marine Corps history from 1775 to 1918 are presented in the General Military Subjects category. Job finding and application procedures are covered as part of Career Exploration. Participation in community service projects is encouraged. Mid-level leadership roles within the cadet company organization may be assigned to second year cadets. Extracurricular activities include Drill Team, Color Guard, and Marksmanship Team.

### **Leadership Education III**

143103 LE III Level: 3 Credits: 1.0  
(Pocomoke and Snow Hill schools only)  
Prerequisite: Satisfactory completion of Leadership Education II and junior or senior class membership

Leadership instruction progresses to such topics as the styles of leadership, the importance of inspections and evaluations, and conducting performance evaluations. General Military Subject topics include the organization of the Marine Corps, Marine Corps history during World War II, military medals and ribbons, the Uniform Code of Military Justice, and advanced topics in land navigation.

State and Federal careers are explored as part of the Public Service component of the course, as well as the benefits of military service. Mid to upper-level leadership roles within the cadet company organization may be assigned to third year cadets. Extracurricular activities are as indicated previously.

### **Leadership Education IV**

145103 LE IV Level: 3 Credits: 1.0  
(Pocomoke and Snow Hill schools only)  
Prerequisite: Satisfactory completion of Leadership Education III and junior or senior class membership

This course is designed to provide students with leadership application experience. Normally assigned to the highest-ranking positions within the cadet company organization, these Cadets serve as role models for younger Cadets. They assist the Marine instructors in conducting physical fitness training, drill, and uniform inspections. They plan, organize and conduct such events as the Marine Corps birthday ceremony, community service events, and a Mess Night. They will write a resume, research paper, and prepare and teach a lesson for a first year cadet class. Marine Corps history from the Korean War to the present is studied along with the organization of the Marine Air-Ground Task Force. Extracurricular activities are as indicated previously.

### **Drill Team**

144103 Drill Team Level: 3 Credits: 1.0  
Prerequisite: Satisfactory completion of Leadership, I, II or III

This course is open to designated members of the Marine Corps JROTC of all grade levels. Instructional emphasis will be on sharpening individual armed and unarmed drill proficiency with a natural progression to drill team proficiency. Class time will be used to develop specific drill routines and practice same in preparation for representing the school in parades, JROTC drill competitions, and special events. In addition, this course will help develop student drill leaders for the MCJROTC Program.

### **United States Military History**

146103 US Military History Level: 3 Credits: 1.0  
This course may not be offered in all schools.

This is a chronological survey course of United States Military History. A study will be made of the development of America's military establishment from the colonial wars to the present and the impact of American military policy on international relations and domestic development. We will examine the influence of several aspects of American life that have had an impact on the development of the American military, i.e. economic, strategic, tactical,

and technological. The fundamental objective of this course is to have students acquire sufficient knowledge and skills so as to better understand the role and impact that the U. S. military has on the American way of life. By increased knowledge, students will also develop a greater respect for and appreciation of the freedoms and liberties all Americans enjoy. This course is for Military Science credit only.

## **CAREER AND TECHNOLOGY EDUCATION**

All Career and Technology (CTE) programs of study are approved by the Division of Career and College Readiness of the Maryland State Board of Education and conform to state and federal student performance accountability measures. Value added secondary study in preparation for immediate competitive employment with industry credentials and/or articulated/transcripted college credit for post-secondary education is reflected in Level III or Level IV designation for all CTE core course work. By completing rigorous program standards and national tests at a high level, students may earn portable industry certifications and college credit. STEM Academy Programs provide transcripted 4-year college credit. In other program areas, Professional Licenses may be earned where appropriate or available. Tech Prep Programs articulate community college credit in addition to industry certifications where available and appropriate.

### **STEM Academy Programs**

The STEM (science, engineering, technology and mathematics) Academy at Worcester Technical High School provides in-coming 9th grade students the opportunity to participate in focused technical programs of study. Combined with rigorous academic course work in mathematics and science, students prepare for post-secondary education leading to STEM related career fields in biomedical science, business management and finance, pre-engineering, and interactive media production. Enrollment in the programs is limited. Students are accepted to STEM Academy programs through a competitive application process in the spring of their 8th grade middle school year.

### **Biomedical Science/ Project Lead the Way**

The *Project Lead the Way (PLTW)* Biomedical Science Program uses project-based and problem-

based learning to engage students. The curriculum teaches students to solve problems, participate as part of a team, lead teams, conduct research, understand real-world problems, analyze data, and learn outside the classroom. The program prepares students for further education and careers in biomedical science. Students who successfully complete the four core program courses will be issued a certificate of concentration in biomedical science. The four core required courses in biomedical science are:

### **Principles of the Biomedical Sciences**

816103 Prin of Biomed Sci Level: 3 Credits: 1.0  
Prerequisite: Acceptance into the program

Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. The course is designed to provide an overview of all the courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses.

### **Human Body Systems**

816203 Human Body Systems Level: 3 Credits: 1.0  
Prerequisite: Principles of the Biomedical Sciences

Students engage in the study of the processes, structures, and interactions of the human body systems. Important concepts in the course include: communication, transport of substances, locomotion, metabolic processes, defense, and protection. Students design experiments, investigate the structures and functions of body systems, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operation.

### **Medical Interventions**

816303 Medical Interventions Level: 3 Credits: 1.0  
Prerequisite: Human Body Systems

Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease. The course is a “How-To” manual for maintaining overall health and homeostasis in the body as students explore how to prevent and fight infection, how to screen and evaluate the code in human DNA, how to prevent, diagnose and treat cancer, and how to prevail when the organs of the body begin to fail. Students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important roles scientific thinking and

engineering design play in the development of interventions of the future.

### **Biomedical Innovation**

816403 Biomed Innov Level: 3 Credits: 1.0  
Prerequisite: Medical Interventions

In this capstone course students design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. They apply their knowledge and skills to answer questions or to solve problems related to the biomedical sciences. They may work with a mentor or advisor from a university, hospital, physician’s office, or industry as they complete their work. Students are expected to present the results of their work to an adult audience, which may include representatives from the local healthcare or business community.

### **Business Management and Finance**

The Business Management and Finance program offers three CTE certificate pathways approved by the Maryland State Department of Education: Accounting and Finance, Business Administrative Services, and Marketing. Upon successful completion of two foundation courses, students are enrolled in two core courses for each pathway. The program prepares students for success in college and careers related to business and finance. Students who successfully complete the foundation courses and the core program courses will be issued certificates of concentration in each of the three pathways.

**The foundation courses are:**

### **Principles of Business Administration and Management**

841113 Bus Admin Manage Level: 3 Credits: 1.0

This is one of two foundation courses required for all programs of study in the Business Management and Finance Academy. This course provides students with the necessary knowledge to demonstrate and apply various theories of business. Emphasis is placed on analysis of the four types of business ownership, understanding the historical perspective of various business types, laws, theories and principles of business, as well as external factors that can impact a business, and leadership, teamwork, and career opportunities.

### **Principles of Finance and Accounting**

834133 Fin and Acct Level: 3 Credits: 1.0  
Prerequisite: Principles of Business Administration and Management

This is one of two foundation courses required for all programs of study in the Business Management and Finance Academy. This course provides students with the knowledge and practice they need to make informed financial decisions. Emphasis is placed on revenue, expenses, credit and money management; financial resources of a business, risk management process (insurance), the importance of banks and other financial institutions to the financial success of a business, and procedures and technology to successfully manage financial resources of a business organization and software competency in preparing financial documents using Microsoft applications.

**The core program certificate courses are:**

### **Advanced Accounting**

834143 Adv Account Level: 3 Credits: 1.0  
Prerequisite: Principles of Finance and Accounting

This course provides students with knowledge necessary to manage and maintain a company's financial resources in daily operating decisions. A mastery of fundamental accounting concepts, skills and competencies are essential to making informed business decisions. Students will learn to apply generally accepted accounting principles to determine the value of assets, liabilities, and owner's equity as they apply to various forms of business ownership. Students will prepare, interpret, and analyze financial statements using manual and computerized systems for service and merchandising businesses. Students will apply appropriate accounting principles to payroll and tax liabilities. Students will identify positions and career paths in the field of accounting. Students will examine the role of ethics and social responsibility in decision making.

### **Accounting and Finance Capstone**

834153 Acct & Finance Cap Level: 3 Credits: 1.0  
Prerequisite: Advanced Accounting

This course provides students with accounting knowledge that will prepare them for post-high school levels of education and entry-level positions in the work force. Focus will be on accounting procedures necessary to address long and short-term assets and investments, long and short-term liabilities, inventory management and accounting ratios used the decision-making process. A comprehensive study of the accounting procedures used in establishing corporations, declaring and paying dividends, the formation and dissolution of partnerships, distribution of net income and owners' equity statements is included in this course. Career pathways for accounting will be examined and the use of accounting knowledge in a variety of career

clusters is also explored. Awareness of ethical issues and application of ethical decision-making models will be reinforced throughout the course. Upon completion, opportunities will be made for students to earn college credit through such methods as articulation agreements with local colleges, dual enrollment, and CLEP exams.

### **Introduction to Marketing**

845223 Intro Market Level: 3 Credits: 1.0  
Prerequisite: Principles of Finance and Accounting

This course introduces the student to the essential concepts of marketing theory required to provide the goods and services to meet the consumers' wants and needs. Students will be introduced to the benefits of marketing in a free enterprise system. Consumer buying behavior and relationships will be analyzed and understood. The elements of the marketing mix (product, price, promotion, and place), as well as pricing strategies, will be introduced. Various forms of electronic and internet marketing will be utilized, as well as a study of e-commerce. Students will learn the benefits and importance of Marketing Information Systems. They will formulate viable marketing strategies by learning and creating a rudimentary marketing plan. By the end of the students will have a solid understanding of the many diverse career opportunities in the field of marketing.

### **Advanced Marketing**

845233 Adv Market Level: 3 Credits: 1.0  
Prerequisite: Introduction to Marketing

This course builds on all of the concepts studied in the introductory course by giving the students in-depth, comprehensive project-based learning opportunities. Throughout this course, students will use strong interpersonal skills and incorporate technologies when conducting primary and secondary research. In addition, students will include alternatives of electronic and internet marketing within their marketing plan. Students will create and/or use a marketing information system(s) when working with or collecting data and will create a professional marketing plan. Students will integrate their knowledge of legal issues, ethics, diversity and social responsibilities in developing their marketing plan. Upon completion, opportunities will be made for students to earn college credit through such methods as articulation agreements with local colleges, dual enrollment, and CLEP exams.

### **Office Systems Management I - Word**

842123 Off Sys Man I Level: 3 Credits: 1.0

Office Systems Management provides the student with a study of basic business practices, information systems and computer applications. Students develop managerial and technical skills for business support operations through applied learning. Problem-solving skill development is incorporated throughout the course. Industry standard office equipment and the most current Microsoft Office software available will be used in this course.

### **Office Systems Management II – Excel** 842133 Off Sys Man II Level: 3 Credits: 1.0

Students will develop advanced skills using Microsoft's leading business desktop software and acquire the Microsoft Office Specialist (MOS) credential. Students will be expected to think analytically, manipulate information, and use the computer as a productivity tool through integrated application programs. Expertise in technology will contribute to students' future career mobility, advancement potential, compensation and job satisfaction.

## **Interactive Media Production**

This program of study provides students a strong foundation in arts and communication with particular emphasis on design, graphic and media communication, interactive technologies, and project development. Students complete two (2) foundation courses before selecting one of two options for advanced study – *Interactive Media Production* **OR** *Simulation and Gaming*. Students who successfully complete the four (4) core program area courses will be issued a certificate of concentration in Interactive Media Production.

### **Principles of Arts, Media, and Communication**

809143 PMAC Level: 3 Credits: 1.0  
Prerequisite: Acceptance into the program

This course provides students an understanding of all aspects of the Arts, Media, and Communication industry. Students will examine the opportunities and requirements of the major career pathways including broadcasting, multimedia production, graphic design, and print communication.

**Interactive Media Production**  
809153 IMP Level: 3 Credits: 1.0  
Prerequisite: Principles of Arts, Media, and Communication

This course further develops student mastery of media design and the interactive media production

process. Students will advance their knowledge and skills through project planning and product development. Students will demonstrate the use of multiple tools and modalities in the production process. Emphasis will be placed on group projects and individual portfolios.

**Advanced Interactive Media Production**  
809163 Adv IMP Level: 3 Credits: 1.0  
Prerequisite: Interactive Media Production

Students will advance their knowledge and skills in multimedia design and production through project planning and product development. Emphasis will be placed on group projects and layered individual portfolios. Adobe Creative Suite Certification and/or Web Design Certification will be offered. This course must be repeated for credit.

**Advanced Simulation and Gaming**  
809173 Adv S & G Level: 3 Credits: 1.0  
Prerequisite: Interactive Media Production

This course will focus on interactive media design, simulation, and gaming. Students will advance their knowledge and skills through the design and development of simulation/gaming products. Emphasis will be placed on group projects and individual portfolio development. Adobe Creative Suite Certification and/or Web Design Certification will be offered. This course must be repeated for credit.

## **Pre-Engineering/ Project Lead the Way**

*Project Lead the Way (PLTW)* incorporates the national standards of the National Council of Teachers of Mathematics, the National Science Standards and the International Technology Education Association. The program prepares students for further education and careers in engineering and engineering technology. Students who successfully complete the five (5) core program area courses will be issued a certificate of concentration in Pre-Engineering. The five (5) core required courses in Pre-Engineering are:

**Introduction to Engineering Design**  
814103 IED Level: 3 Credits: 1.0  
Prerequisite: Acceptance into the program

This foundation course emphasizes the development of design. Students will use computers to produce, analyze and evaluate models of project solutions. They will study the design concepts of

form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. Students will study engineering, design, sketching and visualization concepts, modeling and model analysis verification, marketing, and portfolio production. This course satisfies the Maryland high school graduation requirement in Technology Education.

### **Principles of Engineering**

814114 POE Level: 4 Credits: 1.0  
Prerequisite: Introduction to Engineering Design

This foundation course provides an overview of engineering and technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experience, students address the emerging social and political consequences of technological change. Students will be provided an overview of the perspective of engineering, design process, communication and documentation, engineering systems, statics, material and material testing, thermodynamics, engineering for quality and reliability, and dynamics.

### **Digital Electronics**

808134 DE Level: 4 Credits: 1.0  
Prerequisite: Introduction to Engineering Design and Principles of Engineering

This foundation course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games, and computers. Students use industry-standard computer software in testing and analyzing digital circuitry. They design circuitry to solve problems, export their designs to a printed circuit auto-routing program that generates printed circuit boards, and use appropriate components to build their designs. Students will cover fundamentals, number systems, gates, Boolean algebra, combinational logic circuit design, adding, flip-flops, shift registers and counters, families and specifications, and microprocessors. The end of course assessment will include a capstone project.

**Students may choose one of the two following options to complete the fourth course in the Pre-Engineering course sequence:**

### **Computer Integrated Manufacturing**

811104 CIM Level: 4 Credits: 1.0  
Prerequisite: Introduction to Engineering Design, Principles of Engineering, and Digital Electronics

This course teaches the fundamentals of computer manufacturing technology. The course

builds on the solid-modeling skills developed in the Introduction to Engineering Design course. Students will use computer modeling for property analysis, computer numerical control equipment, Computer Aided Manufacturing, robotics, and flexible manufacturing systems.

### **Civil Engineering and Architecture**

814204 CEA Level: 4 Credits: 1.0  
Prerequisite: Introduction to Engineering Design, Principles of Engineering, and Digital Electronics

This pathway course provides an overview of the fields of civil engineering and architecture while emphasizing the interrelationship and dependence of both fields on one another. Students will study the roles of civil engineers and architects. Students will solve design problems, plan projects, explain concepts of site planning, explore architecture, study structural engineering, and produce project documentation and presentations.

### **Engineering Design and Development**

814214 EDD Level: 4 Credits: 1.0  
Prerequisite: Computer Integrated Manufacturing or Civil Engineering and Architecture

This capstone course enables students to apply what they have learned in academic and pre-engineering courses as they complete challenging self-directed projects. Students work in teams to design and build solutions to authentic engineering problems. An engineer from the school's partnership team mentors each student team. Students keep journals of notes, sketches, mathematical calculations and scientific research. Student teams make progress reports to their peers, mentor and instructor and exchange constructive criticism and consultation. At the end of the course, teams present their research paper and defend their projects to a panel of engineers, business leaders, and engineering college educators for professional review and feedback. This course equips student with the independent study skills they will need in postsecondary education and careers in engineering and engineering technology.

## **MARYLAND TECHNICAL LICENSURE PROGRAMS**

Worcester Technical High School is approved by the State of Maryland as a training center by the following regulatory agencies: The Maryland State Board of Cosmetology, the Maryland Board of Nursing, the Maryland Dental Board, and the State Board of Pharmacy. Students are required to begin their studies for a license in cosmetology, nursing assisting, dental assisting, or pharmacy technician in

the 10th grade in order to complete the clock hour requirements, the rigorous job-imbedded skill practice, and the state licensing assessments in the senior year. Enrollment in the programs is limited. Students are accepted to the Maryland Licensure Programs after a thorough academic review of credits (minimum of six credits earned) which includes successful completion of algebra I, passing the algebra HSA, and good attendance through semester II of the 9th grade year.

## **Academy of Health Professions**

This program of study provides students project and problem-based learning, clinical experiences, and classroom lab instruction to teach students about the field of healthcare. Students are introduced to healthcare knowledge and skills through two foundation courses: *Structure and Functions of the Human Body* and *Foundations of Medicine and Health Science*. Students have the opportunity to earn state and/or nationally recognized certifications and/or college credit.

### **Structure and Functions of the Human Body**

802143 Stru Func Human Body Level: 3 Credits: 1.0  
Prerequisite: Biology

Students in this course study the structure and functions of the human body including cellular biology and histology. Systemic study involves homeostatic mechanisms of the integumentary, skeletal, muscular, circulatory, nervous systems and special senses. Students will investigate the body's responses to the external environment, maintenance of homeostasis, electrical interactions, transport systems, and energy processes. Students will conduct laboratory investigations and fieldwork.

### **Foundations of Medicine and Health Science**

802133 Found Med & Health Level: 3 Credits: 1.0  
Prerequisite: Structure and Functions of the Human Body

This course is designed to provide students with an overview of the therapeutic, diagnostic, environmental and information systems of the healthcare industry. Students will begin to prepare for a medical or health science career by developing a broad understanding of the industry. Students will learn ethical and legal responsibilities, as well as the history and economics of healthcare. Students will engage in processes and procedures that are used in

the delivery of essential services including medical terminology within a variety of medical environments.

### **First Aid and Cardiopulmonary Resuscitation**

820123 First Aid/CPR Level: 3 Credits: 1.0

Students will learn basic life saving techniques used in first aid and CPR. Emphasis is on recognizing signs and symptoms and activating the Emergency Medical System (EMS). Students acquire knowledge and skills to perform basic first aid and American Heart Association certification in adult, infant, and child CPR.

### **Certified Nursing Assisting**

802153 CNA Level: 3 Credits: 2.0  
Prerequisite: Foundations of Medicine and Health Science

Students will participate in a program of study which provides the knowledge, skills, and clinical hours required to receive the Certified Nursing Assisting license as regulated by the Maryland Board of Nursing.

### **Certified Dental Assisting**

802163 CDA Level: 3 Credits: 2.0  
Prerequisite: Foundations of Medicine and Health Science

Students will participate in a program of study which provides the knowledge, skills, and clinical hours required to receive the Certified Dental Assisting license as regulated by the Maryland State Board of Dental Examiners.

### **Certified Pharmacy Technician**

802173 CPT Level: 3 Credits: 2.0  
Prerequisite: Foundations of Medicine and Health Science

Students will participate in a program of study which provides the knowledge, skills, and clinical hours required to receive the Certified Pharmacy Technician license as regulated by the Maryland Board of Pharmacy.

**To complete the Academy of Health Professions certificate, students must complete the capstone course in grade 12:**

### **Clinical Internship**

802183 AoHP CPT Level: 3 Credits: 2.0  
Prerequisite: Pathway Course Above

Students will participate in an internship or clinical work experience guided by a work-based learning agreement developed in partnership with employers, instructors, and parents. This training will be organized around a plan that is cooperatively developed to assure that each component contributes to the student's further education and employability.

## Cosmetology

To complete the Cosmetology certificate, students must record 1500 hours of participation in Cosmetology instruction.

This program of study provides students with opportunities to develop the knowledge and skills required to pass the Maryland State Board Examination to be a licensed cosmetologist. Students who successfully complete the **12 required credits and the clinical experience** will be issued a certificate of concentration in Cosmetology. Program concentration satisfies the Maryland high school graduation requirement. The core required courses in Cosmetology are:

### Introduction to Cosmetology

806103 Intro to Cosmetology Level: 3 Credits: 1.0

Students are prepared to enter the field of cosmetology through an understanding of both the theory and practice of basic processes and techniques used in modern salons. Careers in cosmetology are studied. Emphasis is placed on safety, sanitation, and professional ethics as well as the basic practice of related services. This course may be repeated for credit.

### Nail Care

806113 Nail Care Level: 3 Credits: 1.0

Students study theory, techniques, and applications related to nail care in an applied laboratory setting. The science and technology of manicure and pedicure are emphasized.

### Biology for Cosmetology

510103 Bio for Cosmetology Level: 3 Credits: 1.0

Students study the biology of cosmetology through applied science. Emphasis is placed on anatomy and physiology, chemistry, bacteriology, and disorders of the hair and skin.

## Advanced Hair Care and Treatment

806123 Adv Hair Care Level: 3 Credits: 1.0  
Prerequisite: Intro to Cosmetology

Students learn the theory and practice to perform advanced care and treatment for the hair. Included in the study is hairstyling, hair cutting, chemical waving and relaxer, hair coloring and lightening, thermal waving, curling and pressing, and wig styling. This course may be repeated for credit.

## Clinical Experience in Cosmetology

806143 Cosmetology Clinical Level: 3 Credits: 2.0  
Prerequisite: Adv Hair Care and Treatment

Students must receive a placement in a local salon under the supervision of professionals to advance their knowledge and skills in all aspects of the cosmetology field and earn required clock hour requirements.

## Cosmetology State Board Review

806153 Cosm State Bd Review Level: 3 Credits: 1.0  
Prerequisite: Clinical Experience

Students prepare for the Maryland State Board of Cosmetology Examination. Practice for both the written theoretical test and practical application test are included as well as kit preparation, appropriate dress, and conduct.

## CAREER AND TECHNOLOGY EDUCATION (CTE) PROGRAMS OF STUDY

Worcester Technical High School provides 11th grade students the opportunity to participate in a variety of career preparation programs. Three clusters of technical study are available: Health and Human Services, Information Technology, and Trades and Industry.

Students and their parents should carefully consider the opportunities offered by the Tech Prep Programs. Tech Prep offers challenging courses of study that ensure the acquisition of technically oriented knowledge and skills. These coordinated sequences of academic and technology courses prepare students for lifelong learning including advanced study at community colleges, technical institutions, and four-year colleges and universities.

Each student meets with his/her counselor periodically to review progress made toward achieving the program goals and further refine individual career and educational pathways.

## Agriculture Science

This program of study provides students with opportunities to develop the knowledge and skills required for college entry and career-related employment related to agriculture. Students who successfully complete the four (4) core program area courses will be issued a certificate of concentration in Agriculture Science. The Curriculum for Agriculture Science Education (CASE) is an approved MSDE Program of study which satisfies the Maryland high school graduation requirement.

### **Introduction to Agriculture Science**

801203 Intro Ag Sci Level: 3 Credits: 1.0

This is the introductory course within the CASE sequence. The course is structured to enable all students to have a variety of experiences that will provide an overview of the fields of agricultural science and natural resources. Students will study communication methods, science processes, natural resources, plants and animals, and agricultural mechanic. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

### **Principles of Agricultural Science – Plant**

801213 Ag Sci Plant Level: 3 Credits: 1.0  
Prerequisite: Introduction to Agriculture Science

This course is a foundation course within the CASE sequence. The course is structured to provide an overview of the field of agricultural science with a focus in plant science. Students will work in teams, exploring hands-on projects and activities, to learn the characteristics of plant science and work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery managers and producers, and plant research specialists face in their respective careers.

### **Animal and Plant Biotechnology**

801223 Animal Plant Biotech Level: 3 Credits: 1.0  
Prerequisite: Principles of Agricultural Science - Plant

In this course, students study the agricultural implications of the science of biotechnology. Emphasis is placed on biochemistry, regulations, laws and ethics, and safety and laboratory techniques. Emerging technologies including, but not limited to, DNA/Gene transfer, microbial, and transgenic material are investigated. Careers in biotechnology and the impact of biotechnology on society are studied.

### **Agricultural Business:**

### **Research and Development**

801243 Ag Bus R&D Level: 3 Credits: 1.0  
Prerequisite: Animal and Plant Biotech

The capstone course in the CASE sequence includes team project application in agribusiness and management, research, development and design, and leadership qualities in agriculture science.

### **Automotive Technology**

This program of study provides students with the opportunity to prepare for careers in the automotive industry. Students learn the operation, diagnosis and repair of the systems and components of modern automobiles. Students who successfully complete the four (4) core courses and two (2) required electives will be issued a certificate of concentration in Automotive Technology which satisfies the Maryland high school graduation requirement. This program is affiliated with the National Automotive Technicians Education Foundation (NATEF). The six required courses are:

#### **Automotive Technician Training I**

803203 Auto Tech I Level: 3 Credits: 1.0

Students are introduced to the automotive industry. The topics of study include: tool and equipment usage, basic maintenance procedures, and tire repair. Students receive an overview of the automotive service industry and culture regarding its history, job opportunities, expected salaries, and professional organizations.

#### **Automotive Technician Training II**

803103 Auto Tech II Level: 3 Credits: 1.0  
Prerequisite: Auto Tech I

Students learn how to diagnose and repair automobile braking, steering, and suspension systems.

#### **Automotive Technician Training III**

803113 Auto Tech III Level: 3 Credits: 2.0  
Prerequisite: Auto Tech II

Students learn how to diagnose and repair the engine performance and the electrical systems of automobiles. Four-wheel laser alignment and advanced steering and suspension diagnosis is also studied.

#### **Automotive Technician Training IV**

803123 Auto Tech IV Level: 3 Credits: 2.0  
Prerequisite: Auto Tech III

Students gain experience in application through customer service on all automotive systems. Emphasis is on work-place readiness and skills for post secondary advanced training. Work-based learning (apprenticeships, internships, paid experiences) are available for qualified students.

### **Automotive Electronics**

803133 Auto Elec Level: 3 Credits 1.0

Students study DC circuitry and electronic theory relative to automotive systems.

### **Fundamentals of Refrigeration I**

810103 Fund of Refrig I Level: 3 Credits 1.0

Students study HVAC theory and skills and receive hands-on experience working with copper tubing (flaring, swaging, soldering, and silver brazing). Study of modern automotive heating and cooling systems is included.

## **Computer Technology**

This program of study provides students with opportunities to develop the knowledge and skills required for entry-level employment in computer repair and computer networking. Students who successfully complete the four (4) core program area courses and two (2) recommended electives will be issued a certificate of concentration in Computer Technology. Program concentration satisfies the Maryland high school graduation requirement. (*A "B" average in this Tech Prep program of study earns articulated college credit at Wor Wic Community College.*) The four core required courses in Computer Technology are:

### **Computer Trainer Assembly and PC Troubleshooting**

805143 Computer Trainer Level: 3 Credits: 1.0

In this course, students are introduced to the various components that comprise a personal computer (PC). Students learn how to build a PC and develop the knowledge and skills required to install and configure an operating system. Troubleshooting and repair skills are also developed. Competencies acquired model A+ certification standards. College credit may be obtained through an articulation agreement with Wor-Wic Community College.

### **Operating Systems and Basic Networking**

805153 OS & Basic Networking Level: 3 Credits: 1.0  
Prerequisite: Computer Trainer Assembly and PC Troubleshooting.

In this course, students are introduced to the Windows XP operating system. Hands-on experiences include configuring and maintaining the operating system as well as installing application software. Students also connect PCs in a peer-to-peer network to develop networking skills. Competencies acquired model A+ certification standards. College credit may be obtained through an articulation agreement with Wor-Wic Community College.

### **A+ Certification Preparation I – Core Hardware**

805163 A+ Cert I Hardware Level: 3 Credits: 1.0  
Prerequisite: Operating Systems and Basic Networking

In this course, students prepare for the Comp TIA exam: 220-221: A+ Core Hardware Examination. Students gain an in-depth knowledge of computer components for installation and troubleshooting purposes. Hands-on labs are included to develop the skills necessary to prepare for the certification exam. Competencies acquired model A+ certification standards.

### **A+ Certification Preparation II – Operating Systems**

805173 A+ Cert II OP Level: 3 Credits: 1.0  
Prerequisite: A+ Certification Preparation I – Core Hardware

In this course, students prepare for the Comp TIA exam: 220-222: A+ Operating System Technologies. Students gain an in-depth knowledge of operating systems installing and troubleshooting. Hands-on labs are included to develop the skills necessary to prepare for the certification exam. Competencies acquired model A+ certification standards.

## **Construction Trades**

This program cluster provides students with opportunities to prepare for post secondary training and immediate employment in the construction trades industry. The National Center for Construction Education and Research (NCCER) is the framework for curricular materials, training, and the award of credential to students for completion of units of study.

### **Carpentry**

This program of study provides students with the opportunity to prepare for careers in the carpentry pathway in the construction trades cluster. Students learn career related information, safety, construction

theory, and material and equipment use. Students will also be exposed to new technologies including green building, alternative energies, and weatherization. Students who successfully complete the four (4) courses will be issued a certificate of concentration in Carpentry which satisfies the Maryland high school graduation requirement. This program of study is affiliated with the National Center for Construction Education and Research (NCCER).

### **Foundations of Building and Construction Technology (CORE)**

821203 FBCT-CORE Level: 3 Credits: 1.0

Students will learn the basic elements to help them be successful in the building industry. These elements include but are not limited to such topics as basic safety, introduction to construction math, introduction to hand and power tools, introduction to blueprints, basic rigging, and basic communication and employability skills.

### **Carpentry I**

804113 Carpentry I Level: 3 Credits: 1.0  
Prerequisite: FBCT-CORE

Students will learn trade competencies to help them become employable in the building trades. These will include but are not limited to such topics as floor, wall, and roof construction. It will also include windows, doors, basic stair layout, and basic interior/exterior finishing.

### **Carpentry II**

804123 Carpentry II Level: 3 Credits 2.0  
Prerequisite: Carpentry I

Students will use the knowledge previously learned as well as new applications of construction as they apply to Green Construction. The students will be introduced to different techniques in green building materials. Students will use materials such as steel framing members, different types of environmentally friendly building materials, and green interior/exterior finishes.

### **Green Technology**

804163 Green Technology Level: 3 Credits: 1.0

Students will learn the importance of changing our role in preserving our environment in the construction industry. They will study alternative ways to reduce the carbon footprint of everyday life by using new and different technologies to build and live. The course will cover such technologies as alternative green energies and weatherization. Students will learn about seven ecological areas that

need to be considered when building in order to protect the environment. This course may be repeated for credit.

### **Computer Aided Drafting and Design I**

804133 CADD I Level: 3 Credits: 1.0

Students are introduced to basic AutoCAD commands for two-dimensional drawings and designs. Emphasis is placed on schematics used to communicate in the design process.

### **Heating, Ventilation, Air Conditioning and Refrigeration (HVACR)**

This program of study provides students with opportunities to develop the knowledge and skills required for college entry and career-related employment related to the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) industry. Students who successfully complete the three (3) program area courses will be issued a certificate of concentration in HVACR. The curriculum is accredited by the National Center for Construction Education and Research (NCCER) and is an approved MSDE Program of study which satisfies the Maryland high school graduation requirement.

### **Foundations of Building and Construction Technology (HVACR)**

810143 FBCT-HVACR Level: 3 Credits: 1.0

Students will learn the basic elements to help them be successful in the building industry. These elements include but are not limited to such topics as basic safety, introduction to construction math, introduction to hand and power tools, introduction to blueprints, basic rigging, and basic communication and employability skills.

### **HVACR I**

810203 HVACR I Level: 3 Credits: 1.0  
Prerequisite: FBCT-HVACR

This course provides students the opportunity to learn about the industry as it relates to residential and commercial building. Students master a variety of HVACR skills: trade mathematics, tools of the trade, copper and plastic piping practices, soldering and brazing, ferrous metal piping, basic electricity, introduction to cooling and introduction to heating.

### **HVACR II**

810213 HVACR II Level: 3 Credits: 2.0  
Prerequisite: HVACR I

This course provides students the opportunity to advance their skills in HVACR including, but not limited to, air distribution systems, chimneys, vents and flues, maintenance skills for the service technician, alternating current, basic electronics, electric heating, and control circuit troubleshooting.

### **HVACR III**

810223 HVACR III                      Level: 3 Credits: 2.0  
Prerequisite: HVACR II

This advanced course is optional and is designed to give students further opportunity to master knowledge and skills related to the industry including, but not limited to, accessories and optional equipment, planned maintenance, and trouble shooting of HVACR devices and appliances.

## **Masonry**

This program of study provides students with the opportunity to prepare for careers in the masonry pathway in the construction trades cluster. Students learn career related information, safety, theory of brick and block construction, and material and equipment use. Students who successfully complete the four (4) courses will be issued a certificate of concentration in Masonry which satisfies the Maryland high school graduation requirement. This program of study is affiliated with the National Center for Construction Education and Research (NCCER).

### **Foundations of Building and Construction Technology (CORE)**

821203 FBCT-CORE                      Level: 3 Credits: 1.0

Students will learn the basic elements to help them be successful in the building industry. These elements include but are not limited to such topics as basic safety, introduction to construction math, introduction to hand and power tools, introduction to blueprints, basic rigging, and basic communication and employability skills.

### **Masonry I**

812103 Masonry I                      Level: 3 Credits: 1.0  
Prerequisite: FBCT-CORE

Students are introduced to the trade of Masonry. The topics of study include measurement, drawings, mortar, proper care and use of materials and tools, unit installations and techniques. Students receive an overview of the masonry trade and culture regarding history, job opportunities, responsibilities and the knowledge and skills a mason should process.

### **Masonry II**

812113 Masonry II                      Level: 3 Credits: 2.0  
Prerequisite: Masonry I

Students receive further instruction in masonry unit installation and techniques. Emphasis is placed on residential plans and drawings, grout and other reinforcements, metal work in masonry, advanced laying techniques. Construction techniques include moisture control, inspection, and quality control.

### **Masonry III**

812143 Masonry III                      Level: 3 Credits: 2.0  
Prerequisite: Masonry II

This advanced course is optional and is designed to give students further opportunity to master knowledge and skills related to the industry including, but not limited to, knowledge and skills related to estimation, high-rise construction, commercial drawings, repair and restoration, project planning and supervision, and specialized materials and techniques.

### **Computer Aided Drafting and Design I**

804133 CADD I                      Level: 3 Credits: 1.0

Students are introduced to basic AutoCAD commands for two-dimensional drawings and designs. Emphasis is placed on schematics used to communicate in the design process.

## **Residential Wiring**

This program of study provides students with the opportunity to prepare for careers in the residential wiring pathway in the construction trades cluster. Students learn career related information, safety, electrical theory, and material and equipment use. Students who successfully complete the four courses will be issued a certificate of concentration in Residential Wiring which satisfies the Maryland high school graduation requirement. This program of study is affiliated with the National Center for Construction Education and Research (NCCER).

### **Foundations of Building and Construction Technology (CORE)**

821203 FBCT-CORE                      Level: 3 Credits: 1.0

Students will learn the basic elements to help them be successful in the building industry. These elements include but are not limited to such topics as basic safety, introduction to construction math, introduction to hand and power tools, introduction to blueprints, basic rigging, and basic communication and employability skills.

## **Residential Wiring I**

808203 Res Wire I Level: 3 Credits: 1.0  
Prerequisite: FBCT-CORE

Students are introduced to the electrical trades. The topics of study include electrical safety, electrical theory, and proper care and use of materials and tools. Students receive an overview of the electrical trade and culture regarding history, job opportunities, responsibilities and characteristics an electrician should possess.

## **Residential Wiring II**

808213 Res Wire II Level: 3 Credits: 2.0  
Prerequisite: Residential Wiring I

Students focus on the installation of electrical materials and equipments. Students earn the proper techniques for conduit bending and conductor terminations as well as hardware and systems used by electricians to mount and support boxes and other electrical components.

## **Residential Wiring III**

808223 Res Wire III Level: 3 Credits: 2.0  
Prerequisite: Residential Wiring II

This advanced course is optional and is designed to give students further opportunity to master knowledge and skills related to the industry. Students will learn how to read blueprints and elevations to accurately layout a residence for the proper installation of electrical equipment. Students will study the National Electrical Code and install all circuits to meet national requirements. Students will complete household circuit projects to practice electrical principles and applications.

## **Computer Aided Drafting and Design I**

804133 CADD I Level: 3 Credits: 1.0

Students are introduced to basic AutoCAD commands for two-dimensional drawings and designs. Emphasis is placed on schematics used to communicate in the design process.

## **Culinary Arts**

This program of study provides students with opportunities to develop the knowledge and skills required for college entry and career-related employment related to professional cooking. Students who successfully complete the two (2) core two credit program area courses will be issued a certificate of concentration in Professional Cooking. The curriculum is accredited by the American Culinary Federation (ACF) and is an approved

MSDE Program of study which satisfies the Maryland high school graduation requirement.

## **Foundations of Professional Cooking**

807203 Found Prof Cook Level: 3 Credits: 2.0

This course is the introduction to the fundamental concepts and techniques used in the profession of culinary arts. Students will receive hands-on clinical experience through school-based enterprises, giving the student the opportunity to develop technical skills required in future culinary and baking courses as well as the food service industry. Students will be introduced to professional standards of the industry, safety and sanitation procedures, knife skills, including handling and care, cooking processes and procedures, product identification, vocabulary and terminology, industry equipment, recipe costing, and quantity adjustments.

## **Professional Cooking**

807213 Prof Cook Level: 3 Credits: 2.0  
Prerequisite: Foundations of Professional Cooking

In this course students continue their study in fundamental concepts, techniques, theories, ingredients, and methodologies involved in the preparation of basic menu items. Students rotate through food handling methods and techniques, portion control, costing, production, plating and garnishing of soups, salads, starches, vegetables, and entrees. Students participate in demonstrations, group exercises and school-based enterprises to supplement developments of technical knowledge and skills.

## **Baking and Pastry Arts**

807123 Baking & Pastry Level: 3 Credits: 1.0

In this elective culinary arts course, students explore the fundamental concepts and techniques in baking. Baking science, terminology, equipment, ingredient, weights and measurements, formula conversion and costing recipes are studied. Students will prepare a variety of baked goods including rolls, cakes, pies, and cookies. Students participate in group exercises and school-based enterprises to supplement development of technical knowledge and skills.

## **Early Childhood Education**

The Early Childhood Education Program is designed to prepare students for continuing education in preparation to be public school teachers and/or child care providers in family and group care settings. Students completing the capstone Early Childhood Learning Experience course may qualify for the Level 2 Maryland Child Care Credential.

Students who successfully complete the four (4) core program area courses and First Aid/CPR will be issued a certificate of concentration in Early Childhood Education. Program concentration satisfies the Maryland high school graduation requirement. (*A “B” average in this Tech Prep program of study earns articulated college credit at Wor-Wic Community College.*) The five required courses in Early Childhood Education are:

### **Introduction to Early Childhood Education**

815103 Intro Early Child Ed Level: 3 Credits: 1.0

This course introduces students to the major roles and responsibilities of an early childhood educator. Students will study major theories, developmentally appropriate curricula, equipment, schedules, teaching styles, and current research in education.

### **Child Development**

815213 Ch Dev Level: 3 Credits: 1.0

This course defines the major concepts and sequence in the development of a child between conception and adolescence. Students will gain understanding of the importance of prenatal development and its effects on early childhood development. Students will study child development in stages of physical, motor, language, psycho-social, moral, and more. Students will develop and apply search strategies to access information from educational databases and other electronic sources to identify and compare theories that influenced the study of child development.

### **Preschool Child Care**

815223 Preschool Child Care Level: 3 Credits: 1.0  
Prerequisites: Introduction to Early Childhood and Child Development

This course helps students develop a greater understanding of planning guidelines within a preschool curriculum. Students will develop and maintain an appropriate physical environment for activities for young children by implementing room arrangement practices in relation to safety and use of learning centers. This course includes developing and implementing appropriate curriculum including activities and opportunities to promote the physical development (gross and fine motor skills), intellectual, and social-emotional growth of young children.

### **Infant and Toddler Care**

815313 Inf/Toddler Care Level: 3 Credits: 1.0

Prerequisites: Introduction to Early Childhood Education and Child Development

Students receive an introduction to providing a healthy and safe environment for infants and toddlers in a care program. Daily care routines and group activities are developed and practiced. Students will be able to explain the stages of development in children from birth to 2 years. Students will practice effective communication with parents. Developmentally appropriate practice in early childhood care is stressed.

**To complete the Early Childhood Education certificate, students must complete First Aid/CPR.**

### **First Aid and Cardiopulmonary Resuscitation**

820123 First Aid/CPR Level: 3 Credits: 1.0

Students will learn basic life saving techniques used in first aid and CPR. Emphasis is on recognizing signs and symptoms and activating the Emergency Medical System (EMS). Students acquire knowledge and skills to perform basic first aid and American Heart Association certification in adult, infant, and child CPR.

**Students completing the capstone Early Childhood Learning Experience may qualify for the Level 2 Maryland Child Care Credential.**

### **Early Childhood Learning Experience**

815323 Early Child Learn Exp Level: 3 Credits: 2.0  
Prerequisite: Completion of the Early Childhood Education Program

This course is an optional capstone experience where students are placed in supervised training experiences in an agency or institution relevant to early childhood education. Students will earn the Maryland Child Care Credential by completing the 90 clock hour requirement for Core Knowledge Equivalents in child development, curriculum, health, safety and nutrition, special needs, professionalism, and community.

### **Electronics Technician**

This program of study provides students with opportunities to study aspects of the electronics industry. Students who successfully complete the four (4) core program area courses will be issued a certificate of concentration in Electronics. Program concentration satisfies the Maryland high school graduation requirement. (*A “B” average in this Tech Prep program of study earns articulated college credit at Wor-Wic Community College.*) The four required courses in Electronics Technician are:

## Basic Electricity

808103 Basic Elec Level: 3 Credits: 1.0  
Prerequisite: Algebra I and Geometry

Students are introduced to the concept of electricity, including direct current (DC), voltage, power, resistance, inductance, capacitance, and reactance. Applications of Ohm's Law, network analysis, and electrical measurements are stressed.

## Intermediate Electricity

808113 Inter Elec Level: 3 Credits: 1.0  
Prerequisite: Basic Electricity

Students concentrate on the theory and analysis of alternating current (AC). Topics include sine wave, complex wave forms, transformers, transient analysis, resonance circuits, and filters.

## Electronics

808123 Electronics Level: 3 Credits: 1.0  
Prerequisite: Intermediate Electricity

Students are provided an overview of solid-state electronics from basic components to advanced circuit analysis. Topics include diodes, bipolar transistors, field-effect transistors (FET), thyristors, amplifiers, and the application of operation of amplifiers.

## Digital Electronics

808134 DE Level: 4 Credits: 1.0  
Prerequisite: Electronics

This foundation course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games, and computers. Students use industry-standard computer software in testing and analyzing digital circuitry. They design circuitry to solve problems, export their designs to a printed circuit auto-routing program that generates printed circuit boards, and use appropriate components to build their designs. Students will cover fundamentals, number systems, gates, Boolean algebra, combinational logic circuit design, adding, flip-flops, shift registers and counters, families and specifications, and microprocessors. The end of course assessment will include a capstone project.

## Emergency Services

This program of study provides students with the opportunity to prepare for careers in fire fighting and rescue. The courses are offered as a collaborative effort between Worcester Technical

High School and the Worcester County Volunteer Fire Departments with support provided by the Maryland Fire and Rescue Institute (MFRI) of the University of Maryland at College Park. Course scheduling is dependent upon a minimum of 15 students enrolled in each class as required by MFRI. The one-year program is administered by the Worcester County Chief's Association. Up to 11 semester hours of college credit may be applied to a course of study in a Maryland college or university upon successful completion of MFRI standards. The two required courses in Emergency Services are:

## Firefighter I/Rescue Technician

821163 Fire/Rescue Tech Level: 3 Credits: 2.0  
Prerequisite: Student must be a member in good standing of community volunteer fire company; must be 16 years of age

Students study the Firefighter I curriculum as developed by the Maryland Fire & Rescue Institute and the University of Maryland. Students will gain knowledge and skills to safely and effectively perform basic firefighting operations as part of a team. Upon successful completion of this course, students will be able to understand and apply the principles of fire behavior; building construction; water distribution systems; fixed fire protection systems; ventilation; hose streams; fire prevention; and inspections, ladders, and rescue techniques. (NFPA, 1001 Standard for Fire Fighter Professional Qualifications) The Rescue Technician portion of this course will prepare the student to approach each rescue incident with attention focused on the importance of proper operational planning and all related components for effective safe site operation, and victim management and equipment maintenance and inspection, with particular emphasis on vehicular and machinery rescue. Minimum passing score for accreditation from MFRI is 70% in addition to a 100% on skill set evaluations.

## EMT/Hazmat

821263 EMT/Hazmat Level: 3 Credits: 2.0

Prerequisite: Student must be a member in good standing of a community volunteer fire company; must be 16 years of age

This course is designed to train students to become Basic Life Support providers. Major topics covered include legal aspects of emergency care, infection control, patient assessment, respiratory system, oxygen adjuncts and delivery, CPR, AED, bleeding control and management of soft tissue

injuries, musculoskeletal injuries and management, spinal immobilization, pediatric and obstetric emergencies, crisis intervention, multiple casualty and triage management, ambulance operations, and EMS Systems. Each of the seven Maryland Institute of Emergency Medical Services Systems (MIEMSS) written module certification examinations must be passed with a minimum of 70%. The practical evaluation must be passed according to a checklist based on U.S. DOT requirements. A limited re-test option based on the testing policy is permitted in each module for the written and/or practical examination. The Hazardous material portion of the course is to provide students with the knowledge and skills to mitigate a hazardous materials leak. Upon successful completion of the course, students will be able to analyze a hazardous materials incident; plan a response; implement the response; evaluate the progress of the planned response; and terminate the incident (NFPA 472, Standard for Hazardous Materials Responder Professional Competencies).

## **High Performance Manufacturing**

This program of study provides students with opportunities to develop the knowledge and skills required for entry-level employment in a wide range of manufacturing industries. Students who successfully complete the four (4) core program area courses will be issued a certificate of concentration in High Performance Manufacturing. Program concentration satisfies the Maryland high school graduation requirement. (*A "B" average in this Tech Prep program of study earns articulated college credit at Wor-Wic Community College.*) The four core required courses in High Performance Manufacturing are:

### **Modern Manufacturing Techniques**

811123 Man Techniques Level: 3 Credits: 1.0

Students are introduced to the concept of manufacturing, its purpose, and related skills and processes. The history of manufacturing, as well as modern technologies, is emphasized. Students participate in a project format using metal and plastics and a variety of equipment.

### **Manufacturing Materials and Processes**

811113 Man Mat and Process Level: 3 Credits: 1.0

Students are exposed to a variety of material types and processes used in manufacturing. Focus is placed on local products and services, as well as design and production techniques through hands-on experiences.

## **Computer Aided Drafting and Design I**

804133 CADD I

Level: 3 Credits: 1.0

Students are introduced to basic AutoCAD 2000 commands for two-dimensional drawings and designs. Emphasis is placed on schematics used to communicate in the design process.

## **Computer Integrated Manufacturing**

811104 CIM

Level: 4 Credits: 1.0

Prerequisite: CADD I

This course teaches the fundamentals of computer manufacturing technology. The course builds on the solid-modeling skills developed in the Introduction to Engineering Design course. Students will use computer modeling for property analysis, computer numerical control equipment, computer aided manufacturing, robotics, and flexible manufacturing systems.

## **Protective Services**

This program of study provides students with opportunities to develop the knowledge and skills required for entry-level employment in a variety of careers in the protective services field. Students who successfully complete the four (4) core program area courses will be issued a certificate of concentration in Protective Services. Program concentration satisfies the Maryland high school graduation requirement. The four core required courses in Protective Services are:

### **Introduction to Criminal Justice**

813103 Intro to Criminal Justice Level: 3 Credits: 1.0

Students learn the history and structure of American law enforcement as well as how crime is defined and measured. Emphasis is on identifying causes of crime, procedural rights, and the duties and styles of police officers in combating crime.

### **The Administration of Justice**

813113 Adm Justice

Level: 3 Credits: 1.0

Prerequisite: Intro to Criminal Justice

Students study the American court structure and examine institutional corrections and community corrections including institutionalization, parole, and probation. The juvenile justice system is covered as well as the future of corrections in relation to developments in procedure and technology.

### **Forensic Science I**

813143 For Sci I

Level: 3 Credits: 1.0

Prerequisite: The Administration of Justice

Students learn observation skills and how to apply those skills to crime scene investigation and evidence examination. The protocols of crime scene investigation are emphasized. Students explore the identification of trace evidence such as hair, fiber, pollen, and latent fingerprints. The science of DNA profiling and blood spatter interpretation is also studied.

### **Forensic Science II**

813153 For Sci II Level: 3 Credits: 1.0  
Prerequisite: Forensic Science I

Students are introduced to the larger components of physical evidence including drug identification, handwriting analysis, soil examination, glass evidence, tool marks, and ballistics. Students learn to make casts and impressions of such evidence as tire marks and foot prints. Death investigations are explored and the science of forensic anthropology.

## **WORK BASED LEARNING**

### **Employment and Career Preparation**

903102 Emp Career Prep Level: 2 Credits: 1.0  
Prerequisite: Junior or senior status and employment experience intention during senior year

This course is designed for students who anticipate participating in Employment Experience during their junior and/or senior years and who are not enrolled in a career program at Worcester Technical High School. The curriculum includes the process of seeking, obtaining, maintaining, and advancing employment, as well as additional topics to prepare students for independent living (banking, credit, saving and investing, taxes, and housing issues). Other employment related issues including employment outlook in the local area, ethics in the workplace, interpersonal communication skills, and entrepreneurship are studied. Field trips to potential employment sites and guest speakers from area businesses are included in the curriculum.

### **Employment Experience**

904102 Emp Exp Level: 2 Credits: 1.0  
904112 Emp Exp Level: 2 Credits: 2.0  
Prerequisite: Junior or senior status and satisfactory completion of Employment and Career Preparation

This program permits juniors and seniors who have satisfactorily completed the Employment and Career Preparation course and have secured employment to work during or after the school day. Students are required to work a minimum of 15 hours per week and must submit weekly time sheets and employer evaluations to the instructor. The

instructor will monitor student performance and visit students' work sites to address any issues related to job performance. To receive credit, students must be employed throughout the semester, have satisfactory evaluations, and meet the weekly hour requirement. Participants must also be enrolled in at least three hours of other high school courses each day.

### **Internship**

904103 Internship Level: 3 Credits: 2.0  
Prerequisite: Senior status, 12 or more credits of Level III coursework

A maximum of 20 honor roll students in grade 12 who have the approval of the principal and two teacher recommendations are eligible for this internship program. The focus of the program is career awareness, career information, and professional associations at non-school sites. Students intern a minimum of two periods a day or an equivalent amount of time for one semester with a professional sponsor. Students may repeat the internship for a second semester depending upon course enrollment and success in the previous internship experience. Internships may extend beyond the traditional school day. Students must successfully complete a minimum of 270 clock hours in this experience. Each student must be responsible for his/her transportation to and from the location of the internship. Students will be required to keep a daily journal, a weekly time log, and prepare a term project that demonstrates understanding of a specific career through a paper, exhibit, and/or other assignment which is approved by the school coordinator and the participating site coordinator. A grade is assigned for course work.

### **Tutorial Internship**

900113 Tutorial Internship Level: 3 Credits: 1.0  
Prerequisite: Junior/Senior status

The focus of this program is to match junior and/or senior students with underclassmen who need assistance in core content area subject matter. Tutors will work with students to strengthen their skills that have been taught in content areas. The tutors must have demonstrated a strong academic background, excellent math, written, and oral skills, and a willingness to assist others. Tutors must complete an application and interview process. They will be required to keep weekly journals of three entries and complete a term project in the form of a formal paper, exhibit, and/or other assignment which is approved by the school coordinator. A grade is assigned for course work.

## **Community Work Experience I**

904111 Com Work Exp I Level: 1 Credits: 0.0

This course is designed for students who are on a non-diploma track for their high school experience to prepare them for a community work experience. The curriculum is designed to guide career exploration and develop employability skills. Students will be taught vocational, social and self-advocacy skills to be utilized in the workplace. Activities will include self and career awareness, goal setting, obtaining and keeping a job, resume development, interviewing, personal hygiene, and communication in the workplace. Functional academics (reading, writing, and mathematics) will be integrated in classroom lessons and activities. Students will be required to develop a portfolio to assist in transitioning from school to work. This course may be repeated.

## **Community Work Experience II**

904121 Com Work Exp II Level: 1 Credits: 0.0

This course is designed for students who are on a non-diploma track for their high school experience. Students will participate in a community work experience for one half day. Each student will be provided with on-the-job training in site-specific tasks with the assistance of a job coach. Students will participate in a variety of work experiences for vocational exploration and resume development. Students will be required to document their experiences in their transition portfolio and will be evaluated by employers. This course may be repeated.

## **CAREER AND TECHNICAL ELECTIVES**

Note: These courses enhance program completion and are available to all students enrolled in Worcester Technical High School.

### **Agriculture Mechanics**

801253 Ag Mechanics Level: 3 Credits: 1.0

Students are introduced to basic mechanical processes associated with the Agriculture Industry. The class includes operation and maintenance of hand power tools, small engines, metal and wood working, and stick and MIG welding.

### **Basic Mechanics**

820112 Basic Mechanics Level: 2 Credits: 1.0

Students are introduced to basic mechanical processes associated with operation and maintenance of hand and power tools and small engines.

### **Computer Aided Drafting and Design I**

804133 CADD I Level: 3 Credits: 1.0

Students are introduced to basic AutoCAD commands for two-dimensional drawings and designs. Emphasis is placed on schematics used to communicate in the design process.

### **Computer Aided Drafting and Design II**

804143 CADD II Level: 3 Credits: 1.0  
Prerequisite: CAD I

Students study advanced AutoCAD 2000 commands for two and three-dimensional drawings and designs.

### **Computer Concepts**

845123 Comp Con Level: 3 Credits: 1.0

Students with no prior computer experience learn essential information technology concepts including, but not limited to: hardware, software, the Internet, email, programming, and security. In addition to the text, study includes web sites and multimedia elements. Information about operating systems and file management is presented. Basic Internet and networking concepts include LANS, WLANS, the World-Wide Web are demonstrated and discussed. Advanced topics including information systems, databases, and programming languages will be presented.

### **First Aid and Cardiopulmonary Resuscitation**

820123 First Aid/CPR Level: 3 Credits: 1.0

Students will learn basic life saving techniques used in first aid and CPR. Emphasis is on recognizing signs and symptoms and activating the Emergency Medical System (EMS). Students acquire knowledge and skills to perform basic first aid and American Heart Association certification in adult, infant, and child CPR.

### **Work Study**

822143 Work Study Level: 3 Credits: 1.0

820143 Work Study Level: 3 Credits: 2.0

Prerequisite: CTE Program completion and instructor recommendation

Students are supervised in a paid work-based learning experience in local industry related to their

Career and Technology program concentration. This is a capstone experience. Students are required to have completed all related program requirements. Employers evaluate student achievement and performance. This course may be repeated for credit.

### **Authoring & Assessing Web Pages: HTML Code**

821113 HTML Level: 3 Credits: 1.0

Students study HTML code and the process of authoring and troubleshooting basic web pages. Search engines, cookies, streaming video, security, and other related Internet topics are covered.

### **Building Maintenance**

821123 Bldg Main Level: 3 Credits: 1.0

Students are given an overview of the skills and processes involved in the maintenance of residential and commercial buildings. Light carpentry, plumbing, and electrical skills are included. Students are exposed to career opportunities in the field.

### **Creative Engineering: Mech-Tech Challenge**

821133 Tech Challenge Level: 3 Credits: 1.0

Students are introduced to basic mechanical processes and creative technical design as they compete in school-based technical challenges. Systems analysis and problem-solving skills are emphasized. This course satisfies the Maryland Technology Education requirement for one advanced technology credit.

### **Emergency Communications**

821143 Emer Comm Level: 3 Credits: 1.0

Students study protocol and procedure in emergency and public service communications. Students who successfully complete this course will receive certification from the National Academy of Emergency Dispatch. This course is highly recommended for all protective services program completers.

### **Entrepreneurship & Business Development**

821153 Entrepreneurship Level: 3 Credits: 1.0

Students study the process of starting and developing a business enterprise. The structure of business as well as regulations and marketability will be covered in depth. Students will research and develop working business models.

### **Outdoor Education and Leadership**

821173 Outdoor Educ Level: 3 Credits: 1.0

Students will learn outdoor skills in orienteering, navigation, canoeing, sailing, climbing, and wilderness ecology. Focus is on the skills and attitudes of leadership and team building. Careers in outdoor education and leadership are examined.

### **Police Systems and Operations**

813123 Police Systems Level: 3 Credits: 1.0  
Prerequisite: The Administration of Justice

Students explore police systems and basic patrol operation through law enforcement response to traffic and criminal violations. Law enforcement communication systems and communication models are examined.

### **Spanish For Careers**

263323 Spanish for Careers Level: 3 Credits: 1.0  
Prerequisite: Spanish I and enrollment in a program of study at Worcester Technical High School

This elective course is designed to prepare students enrolled in various career pathways at Worcester Technical High School, such as Allied Health Occupations or Protective Services, to communicate with Spanish-speaking persons in the community during work-based learning and other employment experiences. The content emphasizes conversational Spanish in oral and written communication. Specific content will be determined based upon the career pathways of those enrolled in the course. *This course is an elective credit and does not meet the World Language graduation requirement.*

## **BUSINESS TECHNOLOGY ELECTIVES**

### **Information Processing**

842103 Info Processing Level: 3 Credits: 1.0

This course is an overview of four Microsoft XP Office applications: Excel, Power Point, Publisher, and Word. This is one of two courses required before students pursue a certificate in a business technology pathway. College credit may be obtained through an articulation agreement with Wor-Wic Community College.

### **Consumer and Personal Finance**

844103 Personal Finance Level: 3 Credits: 1.0  
Prerequisite: Junior or senior status

In Consumer and Personal Finance, students develop skills in a variety of business applications which apply to personal finance and explore

consumer applications that will enable them to be successful in realistic settings that they will encounter as an adult. Students apply problem-solving skills to business related transactions and acquire basic money management skills. Topics include, but are not limited to: banking services, budgets, car and personal loans, checking accounts, consumer protection, credit cards, housing options, insurance, investment opportunities, job applications, money management, retirement planning, saving accounts, and tax filing.

### **Accounting I**

833123 Accounting I Level: 3 Credits: 1.0

This course helps students understand how systematic records form the basis for business decisions. Students study the accounting cycle and apply the principles to managing a business.

### **Accounting II**

834113 Accounting II Level: 3 Credits: 1.0  
Prerequisite: Accounting I

This course focuses on the study of accounting methods in preparation for post-secondary study.

### **Economics**

620103 Economics Level: 3 Credits: 1.0  
Prerequisite: Algebra I

This course is a survey of economic concepts, principles, and functions. Students will examine theories and then apply those theories to actual economic behavior. Microeconomic topics include supply and demand, production and consumption, and the economic role of government. Macroeconomic topics include measures of economic activity, the business cycle, money supply, and economic forecasting. International economic issues include trade policy, currency exchange, and international economic organizations.

### **Entrepreneurship & Business Development**

821153 Entrepreneurship Level: 3 Credits: 1.0

Students study the process of starting and developing a business enterprise. The structure of business as well as regulations and marketability will be covered in depth. Students will research and develop working business models.

### **Introduction to Automated Accounting Systems**

833133 Auto Acct Sys Level: 3 Credits: 1.0

This course introduces students to computerized accounting programs such as QuickBooks® Basic to reinforce accounting concepts in an online and interactive case setting. Instruction in how accounting information is both created and applied gives students a personal “user” perspective. Students review fundamental accounting concepts and principles through the use of software and the analysis of business events including, but not limited to: financial statements, purchase orders, sales invoices, budgets, operation results, receivables, payables, cash management, and cash flow projection.

## **FAMILY AND CONSUMER SCIENCE**

### **General Family Consumer Science**

151102 Gen Fm Cnsmr Sci Level: 2 Credits: 1.0

Family Consumer Science units of study are: interpersonal relationships, consumer education, personal finance, foods and nutrition, clothing and textiles, career exploration, and time management.

### **Nutrition Science**

152102 Nutrition Science Level: 2 Credits: 1.0

This course is designed to teach skills in planning, preparing, and serving meals attractively. Subject areas include: diet and disease; weight control and nutrition; sanitation and safety; food buying and storage; consumer education and careers.

### **Family and Child Care**

153102 Family and Child Care Level: 2 Credits: 1.0

This course is designed to teach students about the importance of communication among family members and peers; self-esteem; and personal relationships. Students study their own role in the different types of families and the family's influence on society.

In Child Care, emphasis is placed on acquiring skills needed to care and guide the physical, intellectual, social and emotional needs of preschool children. Students will receive an overview of fetal development. Each student has the opportunity to observe and work with children. Students will learn to be aides in child care centers, nursery schools, Head Start programs, and elementary schools, including legal responsibilities regarding child abuse and neglect. Job seeking, employment skills, and career development activities are included.

### **Singles Living**

154102 Singles Living Level: 2 Credits: 1.0

This course, recommended for juniors and seniors, helps students learn responsibilities when "living on their own". Units of study include: getting an apartment; personal finance (including budgeting, savings, utilities, transportation, taxes, and insurance); meal planning; clothing care; interior design; personal relationships; and health care.

## TECHNOLOGY EDUCATION<sup>5</sup>

### Foundations of Technology Systems

161103 Found Tech Sys Level: 3 Credits: 1.0

This course provides students an overview of how to apply technology, resources, requirements, trade-offs, process and controls within structural, mechanical, information, and biotechnical systems. Students explore the design aspects of technology - its evolution, utilization, social and cultural significance. Knowledge and skills in technology systems are acquired through ingenuity challenges and experimentation. This course satisfies the Maryland Technology Education graduation requirement.

### Advanced Technology Systems

162103 Adv Tech Sys Level: 3 Credits: 1.0  
Prerequisite: Foundations of Technology Systems

This course provides students in-depth study of the integration of technology systems and core concepts of technology. Knowledge of technology systems is expanded into the areas of optical, thermal, electronic, fluid, and materials. Advanced theory and application of technology systems are demonstrated through topic investigation, research development, product development, or engineering design to solve a problem.

### Drafting/

### Computer Assisted Drafting and Design

163103 CADD Level: 3 Credits: 1.0  
Prerequisite: Open to 11th and 12th grade students, Foundations of Technology Systems

This course provides students the fundamentals of technical drawing through basic, traditional drafting techniques and the use of computer assisted drafting and design programs (CADD). Knowledge and skills are acquired in a variety of applications: blueprints, schematics, engineering and electronic designs and architectural renderings.

## Technology Applications

164103 Tech App Level: 3 Credits: 1.0  
May not be offered in all schools

Students meet technology proficiencies through the development of personal knowledge and skills of the computer as used as a tool for learning the Voluntary State Standards for Technology Education. Topics of study include: keyboarding, formatting, file management, MSOffice Suite, Internet search strategies, as well as ethical computer use. Career awareness of opportunities for further study in technology is integrated with Skills for Success – communication, team work, and technology literacy. Portfolio production, presentations, and projects are required. This one semester course meets the Maryland Technology Education graduation requirement.

### Advanced Design Applications

162113 Adv Design Apps Level: 3 Credits: 1.0  
Prerequisite: Foundations of Technology Systems

Advanced Design Applications consists of four units including Manufacturing, Energy and Power, Construction, and Transportation. The Manufacturing unit examines the advances that maintain manufacturing efficiency, how human consumption affects manufacturing, how manufacturing affects the standard of living of various peoples, and how processing and changing raw materials can produce more desirable products. The Construction unit examines a number of the factors influencing the design and construction of permanent and semi-permanent structures, the practices related to construction maintenance, alteration, renovation, and the functions of the primary systems installed in those structures. The Energy and Power unit explores the relationship between energy and power technologies and all other technologies, and how modern energy and power systems impact cultures, societies, and the environment. It also offers an examination of how energy and power systems can be made more efficient and how they may be utilized in problem solving. The Transportation unit examines the complex networks of interconnected subsystems that each transportation system comprises and the roles of these components in the overall functional process of the system. It also analyzes the improvements and the impacts of transportation technologies on the environment, society, and culture. This course satisfies the Maryland Technology Education requirement for advanced technology credit.

### Technological Issues and Impacts

162123 Tech Issues & Impacts Level: 3 Credits: 1.0  
Prerequisite: Foundations of Technology Systems

<sup>5</sup>See page 3 for courses which fulfill the Technology and Advanced Technology graduation requirements.

In Technological Issues and Impacts, students learn that technology allows us to extend our ability to modify or change the natural world to meet our wants and needs. However, the resulting changes can be complicated and unpredictable. Attitudes towards technology can be influenced by social, cultural, economic, political, and ecological concerns. Students learn that technology is a neutral topic that can have good or bad impacts on society. The study of technological issues will not give students the correct answers but allows them to develop skills in asking critical questions, understanding alternative viewpoints and their origins, and gives them the confidence to be involved in deciding which technologies to develop, which to use, and how to use them. This course focuses on the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities with the goal of students developing the characteristics of a technologically literate citizen. This course satisfies the Maryland Technology Education requirement for advanced technology credit.

### **Computer Science**

462103 Computer Science Level: 3 Credits: 1.0  
Prerequisite: Algebra II or Geometry

This course is designed for the student who seeks to develop mathematical problem solving skills using the computer as a tool. Included is a general orientation to programming, techniques of program planning, techniques of programming and programming documentation. Each student is required to complete projects using a programming language. Problem solving skills are developed and refined operating within the rigor of logic systems.

### **Advanced Computer Science**

463103 Adv Computer Science Level: 3 Credits: 1.0  
Prerequisite: Computer Science

This course is an extension of Computer Science. Emphasis is placed on problem solving skills and the application of the C++ programming language. Each student is expected to complete extensive projects. Topics covered include data manipulation, high-resolution graphics, and search and sort procedures.

## **HEALTH/FAMILY LIFE EDUCATION**

### **Health/Family Life Education**

170152 Health/Family Life Level: 2 Credits: 0.5

Health/Family Life Education is a survey of the structure, function, and wellness of the human body.

Principles of good health and good health practices are examined. Students examine their lifestyles and make personal goal decisions to attain and maintain optimum health.

The course focuses on nine major concepts: personal health and wellness, personal and social skills, tobacco, alcohol and other drugs, nutrition, safety, relationships, personal care and body systems, life cycle, and family life and human development. This course meets the Health Education graduation requirement.

## **PHYSICAL EDUCATION**

### **Personal Fitness**

171112 Personal Fitness Level: 2 Credits: 0.5

During this course, students will be introduced to cognitive and skill related components to health-related fitness and learn to recognize the relationship of physical fitness to total well-being. Students will discover a variety of activities that can be pursued throughout high school and as an adult. Students will utilize Fitnessgrams as well as knowledge gained to develop personal fitness goals and programs to meet the goals. Throughout the course, students will participate in activities designed to assist with meeting individual goals of student's fitness plans. This course meets the Physical Education graduation requirement.

### **Physical Education 10 - 12**

170102 Physical Education Level: 2 Credits: 1.0

This is a program designed to develop a broad range of skills: body coordination, conditioning and basic skills in individual and dual team sports such as field hockey, baseball, volleyball, softball, tennis, basketball, weight training, aerobics, etc.

### **Athletic Skills**

170112 Ath. Skills Level: 2 Credits: 1.0

This course is for students who have completed the required physical education credit. Emphasis will be on individual, lifetime sports and personal physical fitness. More in-depth development of skills, strategies, and game techniques will also be stressed.

### **Fitness for Life**

170122 Fitness for Life Level: 2 Credits: 1.0  
Prerequisite: Satisfactory completion of Personal Fitness, including Health/Family Life Education

In this semester course, students will be given the opportunity to develop lifelong physical activities. Through activities involving cycling, weight training, jogging, walking, dancing and/or aquatic exercise, students will develop an understanding of the importance of exercising the cardiovascular system in daily life. At the beginning of the course, students will participate in a physical fitness inventory to develop an individualized plan for the semester.

### **Weightlifting/Physical Conditioning**

170132 Wghtlftng/Condition Level: 2 Credits: 1.0

All students in grades 10 through 12 are eligible to take this basic physical fitness/weight training course. Students and the teacher will develop an individualized training program. An individualized physical fitness plan will also be developed in the same manner. Part of the latter plan will be a fifteen minute cardiovascular exercise.

### **Strength, Power, and Speed Training through Weightlifting**

170142 Speed Training Level: 2 Credits: 1.0

This course is offered to all students in grades 10 through 12 who have a serious interest in improving their strength, power, and speed. This course will be in a structured and disciplined environment that will enhance instruction for the serious student in the proper lifting techniques with an emphasis on improvement. It will also be demanding on the students to show progress through physical testing in the aforementioned areas throughout the duration of the semester

## COURSE LEVEL REQUIREMENTS

	TESTS	READING	WRITING	VOCABULARY & SPELLING	PROJECTS	END OF COURSE EXAMINATION
<b>Level I</b> <b>Remedial Coursework</b>	Pre and Post tests on individual teaching units for prescriptive purposes. Students will also take an end-of-course examination.*	Frequent in-class reading assignments from the textbook.	In-class assignments and activities based on skill-building exercises.	In-class activities based on skill-building exercises.	Usually assigned by teacher and completed by students in class under teacher's direction.	√
<b>Level II &amp; III</b> <b>Tech Prep and College Prep Coursework</b>	In addition to quizzes and periodic tests, students will take an end-of-course examination.*	Frequent chapter-long assignments within and in addition to the textbook.	In-class and out-of-class multi-paragraph assignments, usually several short reports per year, in addition to written work demonstrating appropriate use of selected research techniques.	Skill building exercises, sentence and analogy activities on words from in-class and out-of-class reading and writing assignments.	Required at least once per semester, completed both inside and outside of class by student.	√
<b>Level IV</b> <b>Advanced Placement Coursework</b>	In addition to quizzes and periodic tests, students take an end-of-course examination.*	Frequent chapter-long and multi-text assignments from college level materials.	Out-of-class assignments including several explanatory essays and/or research based reports on in-class and out-of-class reading.	Word comprehension and spelling ability appropriate to college freshman, reading and writing levels is expected.	Required at least once per semester and completed outside of class by student.	√

NOTE: Homework assignments at all levels should be appropriate to the course requirements and the students in the class.

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\* See End-of-Course Examination Policy

## Essential Conditions for Student Achievement

No matter what course level of high school studies, the following practices are essential components of an effective instructional program that promote student achievement. Worcester County Public Schools are committed to finding ways to carry out the following key practices\* in all courses of study:

- Establishing high expectations of students in both academic and career path classes;
- Revising career and technology courses and developing new ones with emphasis on communication, mathematics, and science;
- Revising academic courses and developing new ones to teach concepts that apply content to real-life experience and to make connections for students between course content and future roles they may envision for themselves;
- Requiring students to complete challenging programs of study that lead to preparation for post secondary education, the world of work, or both;
- Encouraging academic and career teachers to integrate course content and instruction;
- Revising the instructional process so that the student is actively involved in the learning process;
- Providing guidance and counseling services to help students see the relationship between what they are learning in school and their goals beyond high school; involving parents in the process of planning and annually updating a high school program;
- Providing extra help and extra time that will enable students to complete successfully a program of study that includes high-level academic content;
- Using student assessments and program evaluation information to monitor and improve curriculum, instruction, school climate, and school organization and management.

\*Maryland, Worcester County Public Schools, and partner states in the Southern Regional Education Board High Schools That Work Project recognize these *Key Practices* for secondary schools.

Worcester County Public Schools - Field Courses

APPENDIX A

Course Title	Course Description	Prerequisites	Participation Criteria	Level	Credits	Participating Schools
Clinical Internship	Page 40	Completion of Academy of Health Professions Pathway	Instructor recommendation <i>and</i> student secured employment placement	3	2	WTHS
Clinical Experience in Cosmetology	Page 40	Senior status in Cosmetology Program	Instructor recommendation <i>and</i> student secured employment placement	3	2	WTHS
Early Childhood Learning Experience	Page 46	Completion of Early Childhood Education Program	Instructor recommendation <i>and</i> student secured employment placement	3	2	WTHS
Employment Experience	Page 49	Employment and Career Preparation Course <i>or</i> Career Internship Summer Program	Junior or senior status <i>and</i> student secured employment placement.	2	1-6	PHS SHHS SDHS
Internship	Page 49	Completion of 12 or more Level III courses <i>and</i> honor roll status	Senior status <i>and</i> approval of principal <i>and</i> two teacher recommendations <i>and</i> student secured internship placement/ sponsor. <i>Limited to 20 honor roll students.</i>	3	2-4	PHS SHHS SDHS
Tutorial Internship	Page 49	Strong academic background <i>and</i> excellent math, written, and oral skills	Junior or senior status <i>and</i> successful application and interview process	3	1	PHS SHHS SDHS
Work Study	Page 51	Completion of a Career and Technology program	Instructor recommendation <i>and</i> student secured employment placement	3	1-4	WTHS
Community Work Experience I	Page 50	Non-diploma track status	IEP transition plan recommendation	1	0	WTHS
Community Work Experience II	Page 50	Non-diploma track status	IEP transition plan recommendation	1	0	WTHS