



**North Carroll High School  
HIGH SCHOOL  
PROGRAM OF STUDIES**

**2009 - 2010**

Board of Education of Carroll County  
Westminster, Maryland

Approved at the October 22, 2008 Board of Education Meeting

# **Program of Studies**

## **Carroll County Public Schools Westminster, Maryland**

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## **Message From the Superintendent**

This publication is designed to help students and parents develop a carefully planned educational program for high school. This plan should be based on established graduation requirements and should reflect the interests of the student. Approved course offerings available in Carroll County high schools are identified. Each school develops its program from these course offerings.

Students are encouraged to develop an education program that clearly prepares them to enter a post-secondary education program and prepares them to enter their chosen field of work. Parents, teachers, and counselors need to assist students in developing an educational plan that takes advantage of the comprehensive academic, career-technology, and fine and practical arts course offerings. It is essential for the plan to assure that all state course and competency testing graduation requirements are met.

The mission of the Carroll County Public School System is to “ensure that every student can thrive as a responsible citizen in a changing world by providing rigorous and challenging curriculum in partnership with quality staff, caring families, and supportive community members.”

Today’s students face a much more complex and challenging world. As a school system, it is our responsibility to make sure that they are acquiring the skills they will need to be successful. By focusing our efforts on good instruction and by making sure students are provided with a supportive environment, we can assure that they will be successful.

Best wishes to all of our students as they prepare for the challenges of high school.

Charles I. Ecker  
Superintendent

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## Introduction

The Board of Education of Carroll County and professional staff recognize the need for students and parents to plan a high school program that enables each student to fulfill the Maryland State Graduation requirements in a manner that provides for individual interests, needs, and career goals. This publication describes the comprehensive course offerings available to students. Students, parents, teachers, counselors, and administrators are encouraged to communicate openly in the planning and course selection process.

It is important to note that “No person will be denied admission to any school or to any program or course of study in Carroll County Public Schools on the basis of race, color, national origin, sex, religion, or handicap.” Any student or parent having inquiries regarding the application of these rights should contact the school principal or the Director of Student Services, 125 North Court Street, Westminster, Maryland 21157, telephone 410-751-3123.\*

Not all programs and courses may be available at all schools.

*\*Board of Education Policy JFA Approved November 14, 1979*

## Organization

Course descriptions are listed by subject area. The course numbers are coded to facilitate organization of instructional groups and provide student record information.

The first two digits identify the subject area, the third and fourth digits identify the course, the fifth digit identifies the credit for the course, and the sixth digit specifies the level of instruction defined as follows:

- 1 - Basic
- 6 - Academic
- 7 - Articulated
- 8 - Honors
- 9 - AP and Transcribed

### ***Definitions of Articulated and Transcribed Credits:***

**Articulated Credit Courses** – Students may receive college credit for these courses as a part of a completer program. These credits, that do not transfer to other post and secondary institutions are awarded under the terms of an agreement made with a specific postsecondary institution.

**Transcribed Credit Courses** – Students may earn college credits by taking these courses and successfully completing the corresponding competency tests. Credit is documented on an official transcript from the specific postsecondary institution that awarded the credit. These credits may transfer to other postsecondary institutions.

## Graduation Requirements

### *Entering high school 2009-2010 and after*

Subject	Required Credits	Required Courses
<b>English</b>	4	-English I -Global Perspective Literature and Composition
<b>Social Studies</b>	3	-Government or AP United States Government and Politics -United States History or AP United States History -World History or AP World History
<b>Science</b>	3	-Biology I -Remaining credits from earth, life, and/or physical sciences that include laboratory experiences
<b>Mathematics</b>	4  <b>OR</b>  3 (For Career and Technology Completer Students)	-Algebra/Data Analysis I (or Algebra/Data Analysis A and B -Intermediate Algebra -Geometry Algebra II/Data Analysis   -Two credits of Algebra -One credit of Geometry
<b>Physical Education</b>	1	
<b>Health</b>	½	-Health I
<b>Fine Arts</b>	1	
<b>Technology Education</b>	1	-Foundations of Technology
<b>World Language</b> <b>Or American Sign Language</b> <b>Or Advanced Technology</b> <b>Or State Approved Career and Technology Completer Program</b>	2 2 2  4-9	-Two credits of the same World Language -Sign Language I, II, & III -See List of Technology Courses on Page 7  -See Completer Programs on pages 7 & 8
<b>Financial Literacy</b>	½	-Financial Literacy or -Financial Management Using Software Applications
<b>Electives</b>	5 – 12	
<b>Total Credits Required</b>	25	

Credit will be awarded for high school courses completed successfully in middle school.

#### **Additional Requirements**

- Four years of approved study beyond the eighth grade
- Four credits must be earned after the completion of grade 11
- State-mandated 75 hours of service-learning may be met by completing the course –related option and/or the exemplary service option. (See Service-Learning Guidelines on p. 8)
- Take and pass the four required Maryland High School Assessments (English, Algebra/Data Analysis, Government, and Biology), or take all four High School Assessments, and earn the combined passing scoring of 1602. More details may be found at [www.hsaexam.org](http://www.hsaexam.org). Students who meet eligibility criteria also have the option to complete the Bridge Plan for Academic Validation. More details may be found in the CCPS Student Services Handbook available at [www.carrollk12.org](http://www.carrollk12.org).
- Meet the University System of Maryland Admission Requirements and/or complete a state-approved career and technology completer program. (See p. 11 for University System of Maryland Admission Requirements.)

## Graduation Requirements

### *Entering high school 2008-2009 and before*

Subject	Required Credits	Required Courses
<b>English</b>	4	-English I -Global Perspective Literature and Composition
<b>Social Studies</b>	3	-Government or AP United States Government and Politics -United States History or AP United States History -World History or AP World History
<b>Science</b>	3	-Biology I -Remaining credits from earth, life, and/or physical sciences that include laboratory experiences
<b>Mathematics</b>	3	-Algebra I or Algebra I Part A and Algebra I Part B -Geometry or Geometry Part A and Geometry Part B
<b>Physical Education</b>	1	
<b>Health</b>	½	-Health I
<b>Fine Arts</b>	1	
<b>Technology Education</b>	1	-Foundations of Technology
<b>World Language</b>	2	-Two credits of a single World Language
<b>Or American Sign Language</b>	2	
<b>Or Advanced Technology</b>	2	
<b>Or State Approved Career and Technology Completer Program</b>	4-9	
<b>Financial Literacy</b> <i>(Entering 2007-08 and after)</i>	½	-Financial Literacy or -Financial Management Using Software Applications
<b>Electives</b>	5 – 12	
<b>Total Credits Required</b>	25	

Beginning with the 2001-02 school year and thereafter, credit will be awarded for high school courses completed successfully in middle school.

#### **Enrollment Requirement**

Four years of approved study beyond the eighth grade.

#### **Student Service Requirement**

The state-mandated 75 hours of service-learning requirement may be met by completing the course-related option and/or the exemplary service option. (See Service-Learning Guidelines.)

#### **Assessment Requirements**

Take (prior to 2005-2006) and pass (2005-2006 and thereafter) the four required Maryland High School Assessments (English, Algebra/Data Analysis, Government, and Biology), or take all four High School Assessments, earn a minimum score on each, and earn the combined passing score as established by the Maryland State Board of Education. More details can be found at [222.mdk12.org](http://222.mdk12.org).

#### **Additional CCPS Requirements**

25 total credits required.

Four credits must be earned after the completion of grade 11.

Meet the University System of Maryland Course Requirements and/or complete a state-approved career and technology completer program.

## Carroll County Public Schools Alternatives for Meeting Graduation Requirements

In order to receive a diploma from Carroll County Public Schools, students must complete one of the following alternatives as a graduation requirement. Every course may not be available at all schools.

<b>Alternative 1</b> Two credits of a single world language. The following courses may be used to satisfy this requirement.	
ESOL I, II, III, IV French I, II, III, IV, AP German I, II, III, IV, AP	Latin I, II, III, AP Spanish I, II, III, IV, AP

<b>Alternative 2</b> Two credits of advanced technology education. Completion of two credits from the following courses will satisfy this requirement.	
Electronics Manufacturing & Construction Technologies Graphic Communications Power, Energy, and Transportation Technologies	Script Writing and Video Production Technical Drawing and CADD Technological Issues and Impacts

<b>Alternative 3</b> Complete a State-approved Career and Technology Program (Completer Program). The following programs, which consist of an approved, designated sequence of courses, may be used to satisfy this requirement.
---

Program	Location	Credits
Accounting	All High Schools	4
Administrative Assistant/Secretarial	All High Schools	4
Allied Health Careers	Carroll County Career & Technology Center	4
Animal & Veterinary Science	All High Schools	4
Auto Service Technology	Carroll County Career & Technology Center and South Carroll Career & Technology Center	6
Biomedical Sciences (Project Lead The Way)	Carroll County Career and Technology Center	4
Building Maintenance - Option 1	Carroll County Career & Technology Center	6
Building Maintenance - Option 2	Combination: All High Schools and Carroll County Career & Technology Center	4
Business Administration and Management	All High Schools	4
Carpentry	Carroll County Career & Technology Center	6
Collision Repair Technology	Carroll County Career & Technology Center	6
Computer Technology	Carroll County Career & Technology Center	6
Cosmetology	Carroll County Career & Technology Center	9
Culinary Arts	Carroll County Career & Technology Center	6
Diversified Occupations	Gateway School and Flexible Student Support	4
Drafting	Carroll County Career & Technology Center and South Carroll Career & Technology Center	6
Early Childhood Education	All High Schools	5
Education – Middle and High School (Teacher Academy of Maryland)	Combination - All Schools	4
Electrical Construction	Carroll County Career & Technology Center	6
Emergency Services Technology	Carroll County Career & Technology Center	4
Engineering (Project Lead The Way)	Carroll County Career & Technology Center	4
Financial Services (Academy of Finance)	Combination – All High Schools	6
Floral Design - Option 1	Carroll County Career & Technology Center	6
Floral Design - Option 2	Combination: All High Schools and Carroll County Career & Technology Center	4.5
Food Service and Hospitality Management	All High Schools	4
Heavy Equipment and Truck	Carroll County Career & Technology Center	6

<b>Program</b>	<b>Location</b>	<b>Credits</b>
Technology		
Horticulture	All High Schools	4
HVAC	Carroll County Career & Technology Center	6
Landscaping Design & Construction Option 1	Carroll County Career & Technology Center	6
Landscaping Design & Construction Option 2	Combination: All High Schools and Carroll County Career & Technology Center	4.5
Manufacturing and Machine Technologies	Carroll County Career & Technology Center	6
Marketing	All High Schools	4
Masonry	Carroll County Career & Technology Center	6
Print Production (Print Ed)	Combination: All High Schools and Carroll County Career and Technology Center	4
Technical Support & Networking -	Carroll County Career & Technology Center	6
Textiles and Fashion Careers - Option 1	Carroll County Career and Technology Center	6
Textiles and Fashion Careers - Option 2	Combination: All High Schools and Carroll County Career & Technology Center	5
Video Production	Combination: All High Schools and Carroll County Career and Technology Center	4
Welding	Carroll County Career & Technology Center	6
Wildlife/Natural Resource Management	All High Schools	4

<b>Alternative IV</b>	
Two credits of American Sign Language. The following courses are used to satisfy this requirement.	
ASL I ASL II ASL III	Westminster High School

## **CARROLL COUNTY PUBLIC SCHOOLS SERVICE LEARNING PROGRAM**

### **MISSION STATEMENT**

The Carroll County Service-Learning Program has been designed to benefit the student, school, and the community through developmentally appropriate Service-Learning opportunities.

### **DEFINITION OF SERVICE-LEARNING**

Service-Learning teaches students that they are able to make a difference in the community through actions of citizenship. Service-Learning includes; Preparation, identifying projects and learning skills; Action, Direct Service such as tutoring or helping at a nursing home. Indirect Service such as organizing a food drive or cleaning up the Bay; and Advocacy projects such as MADD, Just Say No, or DARE; and Reflection, evaluating projects through discussion or completion of the writing prompt on the Service-Learning Reflection Form.

### **CARROLL COUNTY GUIDELINES**

1. Students, parents, and individuals/organizations who accept student volunteers are hereby advised that the fact that Service-Learning is mandated is not a sufficient basis for attaching liability to the Carroll County Public Schools. The Board of Education of Carroll County does not provide general liability insurance for individuals or organizations for whom students may perform student service. Parents or guardians of student and individuals or organizations that accept student volunteers should verify the adequacy of their own insurance coverage.
2. The Carroll County Program will meet or exceed the minimum number of hours (75) of Service-Learning as required by the State of Maryland. Students may count a maximum of 20% of total practice and preparation time for a service learning activity, unless pre-approved by the school's Service Learning Coordinator.
3. Students may meet the Service-Learning Graduation Requirement by completing the Course-Related Option or by completing the Exemplary Service Award Option.
4. Students may accumulate service hours beginning the summer after the completion of grade 5 through grade 12; and, may complete the requirement any time during that period. Students must complete a minimum of 55 Service-Learning hours by the end of the eleventh grade in order to be promoted to Senior status.
5. Service-Learning hours will be pro-rated for students transferring into Carroll County Schools from out-of-state or from non-public schools after the start of the sophomore year. Students transferring during the sophomore year will be required to complete 40 hours; during the junior year, 30 hours; during the first semester of the senior year, 10 hours; during the second semester of their senior year, 5 hours.

6. Service-Learning activities will be approved by the school principal or student service coordinator. Students shall not be paid for their service and shall not earn hours for service to a for-profit agency or business. Students shall not earn hours for service in preparation for or during religious services; not earn hours for assisting family members with tasks such as cutting the lawn or babysitting; not be excused from school to earn service-learning hours. Check with the school coordinator for clarification.
7. Students choosing the Exemplary Service Option must document service-learning hours on the Service-Learning Reflection Form (form on front).

**COURSE-RELATED SERVICE OPTION**

Students may fulfill the Service-Learning Graduation Requirement by successfully completing courses that contain a service-learning component. Students must earn the minimum of 75 service-learning hours to satisfy the Service-Learning Requirement. The number of hours each course\* provides is listed below.

**Middle School Courses Providing Hours:**

6th grade Outdoor School (10)  
 8th grade Family & Consumer Sciences (15)  
 Learning For Independence Job Readiness (15)

**High School Courses Providing Hours:**

Advanced Laboratory-Child Development (30 hours)  
 Child Development Laboratory (30 hours)  
 Ecology (30 hours)  
 Government (5 hours)

**Courses Providing 10 Hours:**

Applied Art	Science Research I, II
Environmental Conservation	ASL III
Horticulture	Social Studies Aide
Issues in American Society	Special Ed Aide
Learning for Independence	U.S. History
Math Aide	Veterinary Science
Media Assistant	Wildlife Management
Newspaper Production+	Writing Assistant
Peer Facilitating	Writing Lab Aide
Science Lab Aide	Yearbook Production+

\*Students may earn Service-Learning hours in additional courses with the prior consent of the instructor.

+Students may earn 10 Service-Learning hours for the ½ credit course and 20 Service-Learning for the 1 credit course

**Career and Technology Courses Earning Service-Learning Hours\*\***

Allied Health Careers	Drafting	Manufacturing and Machine Technologies
Auto Service Technology	Early Childhood Education	Masonry
Building Maintenance	Electrical Construction	Print Production
Carpentry	EST	Professional Baking and Pastry
Collision Repair Technology	Floral Design	Technical Support & Networking
Computer Technology	Heavy Equipment & Truck Technology	Textiles & Fashion Careers
Cosmetology	HVAC	Video Production
Culinary Arts	Landscaping Design and Construction	Welding Technology

\*\*Hours earned are based on the level of the course.

**EXEMPLARY SERVICE AWARD**

Students who complete a minimum of 300 service-learning hours by May 1 of their senior year will earn the Exemplary Service Award and will be honored with a certificate upon graduation.

Service-Learning hours must be documented on a Service-Learning Reflection Form and approved by the Service-Learning Coordinator in the same year in which the service is performed.

# COURSE SELECTION AND ENROLLMENT OPTIONS

## FLEXIBLE STUDENT SUPPORT

This alternative program offers credit classes in English, social studies, science, health, math, fine arts, and occupational programs for students who have withdrawn from high school and need only a few credits to meet graduation requirements, or are enrolled in daytime high school and need to take advantage of the course offerings available through Flexible Student Support programs.

- **Student Support Center** – traditional instruction in a school class setting.
- **Distance Learning** – a facilitator is on-site for on-line courses.
- **Diversified Occupations** – classroom instruction combined with work experience leading to a completer program.

Students are required to follow all policies and procedures of Carroll County Public Schools while enrolled in these programs. Credits earned are transferred back to the student's home school to apply toward graduation requirements.

For further information, contact the Pupil Personnel Worker assigned to your school or call 410-751-3145

## ALTERNATIVES TO FOUR-YEAR ENROLLMENT

In recognition of the fact that four-year enrollment in a public high school may not serve the best interests of some students, the following alternatives shall be made available:

### 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:

- The student is accepted for early admission to an accredited college before high school graduation;
- All State competency prerequisites, the 25 credit, specified credit, and student service requirements have been met;
- 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 fourth year attendance requirement and certifying the early admission acceptance.

### EARLY ADMISSION TO APPROVED VOCATIONAL, TECHNICAL, OR OTHER POST-SECONDARY 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-high school if:

- The student is accepted for early admission by an approved vocational, technical, or post-secondary school before high school graduation;
- All State competency prerequisites, the 25 credit, specified credit, and student service requirements have been met.
- 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 fourth year requirement and certifying the early admission acceptance.

### GENERAL EDUCATIONAL DEVELOPMENT TESTING PROGRAM

A Maryland High School Diploma may be awarded for satisfactory performance on approved general educational development tests provided that the student meets those requirements as defined in Education Article, 7-205, Annotated Code of Maryland.

## ENROLLMENT CRITERIA FOR COURSES AT THE CAREER AND TECHNOLOGY CENTERS AND REGIONALIZED PROGRAMS

The Carroll County Career and Technology Center and the Career and Technology Center located at South Carroll High School are career specialization schools. Students enrolled in the programs at the centers are also enrolled in their home schools where supporting course work and extracurricular activities are provided.

Except where noted, transportation to the Career and Technology Centers is provided on a round-trip basis from the home school. Many of the Career and Technology courses include work-based learning experiences. These experiences are often off school property. Transportation to these experiences shall be the responsibility of the parent/guardian. Students are required to purchase uniforms in many of the career and technology programs and to wear appropriate safety apparel.

Students may apply to any of the programs provided they meet prerequisites for specific courses and complete application requirements. Students are selected on the probability of success in Career and Technology Programs. The minimum requirements to be enrolled into a Career and Technology Program are:

- 94% attendance
- 2.0 Grade Point Average in academic-level, or higher, course work

- successful completion of the required prerequisites
- student must be promoted to the 11<sup>th</sup> grade
- completion of course work as indicated in the Pathways To Careers

Students not meeting these requirements may be considered at a later date for enrollment by improving grades, attendance, and course work.

Programs vary in number of credits and prerequisites. Pathways to Careers and the course descriptions in the Program of Studies should be used in preparing a comprehensive high school plan.

### **MARYLAND STATE COLLEGES AND UNIVERSITIES ADMISSION REQUIREMENTS**

The University encourages students to take challenging high school courses that will prepare them for success upon entering the University. The courses listed below, along with an acceptable standardized test score, represent the minimum high school requirements for entry in the USM institutions. Individual campuses and programs may have additional admission requirements. Students should seek out these specific requirements by writing the admissions office at their campus of choice.

#### **Minimum Course Requirements for Admission**

<b>Subject</b>		<b>Credits</b>	
English		4	
World Language or Advanced Technology		2**	
Social Science/History <ul style="list-style-type: none"> <li>• Government</li> <li>• United States History</li> <li>• World History</li> </ul>		3	
Mathematics For students entering 9 <sup>th</sup> grade prior to the fall of 2009 <ul style="list-style-type: none"> <li>• Algebra I/Data Analysis</li> <li>• Algebra II or Intermediate Algebra/Data Analysis</li> <li>• Geometry</li> </ul>	For students entering 9 <sup>th</sup> grade during the fall of 2009 and thereafter: <ul style="list-style-type: none"> <li>Alg. I / Data Analysis</li> <li>Intermediate Alg./Data Analysis</li> <li>Alg. II / Data Analysis</li> <li>Geometry</li> </ul>	For students entering 9 <sup>th</sup> grade prior to the fall of 2009  3	For students entering 9 <sup>th</sup> grade during the fall of 2009 and thereafter:  4***
Science In at least two different areas, with at least two lab experiences.		3*	

\*For students interested in science-oriented careers (such as medicine, engineering, veterinary medicine, physical therapy, etc.), four years of science are recommended in three different science areas, with at least three lab experiences.

\*\*Each institution will determine whether Advanced Technology credits will be accepted in lieu of World Language. Please contact the institution(s) of your choice for information.

\*\*\*Beginning with students entering 9<sup>th</sup> grade in 2009 CCPS uses a four course (4 credits) sequence to meet the mathematics learning goals identified in the Maryland State Voluntary Curriculum and by the Maryland University System.

Consideration for admission is also based on the rigor of coursework, performance on high school assessments, trends in performance, citizenship and leadership, special talents, and personal circumstances.

### **STATE-APPROVED ON-LINE COURSES**

Carroll County Public Schools believes that web-delivered courses provide alternative opportunities in the delivery of instruction for our students. Courses are designed to expand student access to challenging curricula aligned to the Maryland Content Standards and the Voluntary State Curriculum through the delivery of high-quality on-line courses for high school credit.

These courses are consistent with the regular school program; however, teaching is primarily conducted on-line with the teacher physically separated from the students. Students work independently and at various times of the day or week. Teachers communicate with students on-line and via telephone. Each school has a support system for students taking on-line courses and management of on-line courses resides at the local school.

Courses offered through MVLO have been reviewed and accepted by MSDE for approved credit and are taught by highly-qualified teachers. Schools placing students in MVLO courses are responsible for providing a mentor teacher and providing computer access and courses scheduled during regular school day.

Students are able to register for MVLO courses only under exceptional circumstances that prevent enrollment in a traditional face-to-face classroom setting. Only the principal has the authority to approve student placement in a MVLO course. Please contact your Guidance Counselor for more information.

# HONORS AND ADVANCED PLACEMENT

## HONORS AND ADVANCED PLACEMENT COURSES

Honors courses differ from academic courses in that they require students to be more independent, creative, and extensive in the pursuit of topics and concepts. They are more rigorous, not because of a greater quantity of work, but because students will explore topics to a greater depth, using inquiry and problem-solving approaches.

Typically, students who are successful taking honors courses are highly motivated and are high achievers. They learn rapidly, can make generalizations and understand complex concepts, and produce original and creative products. They accept responsibility for their own learning and strive to maintain good work habits, interest, attitude, and a commitment necessary for high achievement.

Open Enrollment Policy – All students who meet the prerequisites shall be given the opportunity to enroll in honors or AP courses.

## ADVANCED PLACEMENT TESTING

Opportunities are available for highly motivated students to participate in the Advanced Placement Program administered by the College Board. Advanced Placement examinations are offered annually to give high-school students opportunities to demonstrate college-level achievements. As with other College Board examinations, students pay a fee for each Advanced Placement examination they take. Advanced Placement examinations are administered annually in May. Individual students should see guidance counselors for specific information relative to the Advanced Placement Program.

In order to provide instructional assistance to highly motivated students interested in the Advanced Placement Testing, specific course opportunities have been developed in Carroll County high schools. Courses specifically identified as such include:

### **Career and Technology**

#### **Education**

- AP Computer Science A

#### **English**

- AP English Language, Literature & Composition
- AP Language & Composition
- AP Literature & Composition

#### **Fine Arts**

- AP Studio Art
- AP Music Theory

### **Science**

- AP Physics
- AP Chemistry
- AP Biology
- AP Environmental Science

### **World Languages**

- AP French (language)
- AP Spanish (language)
- AP Spanish Literature
- AP German (language)
- AP Latin (Vergil)
- AP Latin Literature

### **Mathematics**

- AP Calculus – AB
- AP Calculus – BC
- AP Probability and Statistics

### **Social Studies**

- AP United States History
- AP World History
- AP European History
- AP Macroeconomics
- AP Psychology
- AP US Government and Politics

Students and parents should understand that extra demands are essential for success on the Advanced Placement examinations and that the individual student must pursue studies on a personal basis. In each of the courses designated above, teachers will assist the student in identifying the content covered by a particular Advanced Placement test and offer individualized instructional assistance within the structure of the course.

# GRADE POINT AVERAGES AND RANKINGS

## DUAL SYSTEM FOR REPORTING GRADE POINT AVERAGES/CLASS RANK

Students in Carroll County Public Schools receive a weighted and non-weighted Grade Point Average (GPA)/class rank determined by the final grade of each course. The dual GPA/class rank system is based on the assignment of quality points. The charts below identify the quality points assigned in both the weighted and non-weighted systems.

Students in Carroll County Public Schools receive a weighted and non-weighted Grade Point Average (GPA)/class rank determined by the final grade of each course. The dual GPA/class rank system is based on the assignment of quality points. The charts below identify the quality points assigned in both the weighted and non-weighted systems.

WEIGHTED GPA			
STUDENTS ENTERING GRADE 9 IN 2005-2006 AND AFTER			
	AP/Transcripted	Honors	Academic/Articulated
A	5.0	4.5	4.0
B	4.0	3.5	3.0
C	3.0	2.5	2.0
D	1.0	1.0	1.0
F	0	0	0

NON-WEIGHTED GPA	
For All Students, In All Courses, AT All Levels	
A = 4.0	
B = 3.0	
C = 2.0	
D = 1.0	
F = 0	

All scholarships from the Maryland State Scholarship Program are granted based on criteria using a non-weighted GPA. Recipients of the Governor's and Presidential Award shall be selected based on the weighted GPA rankings. Each school's honor roll shall be determined using the weighted GPA. Students are selected at each high school for the National Honor Society based on established county criteria. Current cumulative weighted and non-weighted grade point average, as well as honor roll status, shall be listed on each report. The weighted and non-weighted GPA will be included on a student transcript.

Please consult your school guidance office for additional information and procedures.

## MARYLAND SCHOLARS PROGRAM

The Maryland Scholars Program is designed to increase the percentage of students who complete rigorous coursework and are well prepared to succeed in college and the workplace. A major component of the Maryland Scholars Program is focusing eighth and ninth grade students on the importance of their course selections for high school and the pivotal role higher-level math and science courses play in future career opportunities. The program relies on business volunteers to deliver the message to students in their classrooms about the connection between achievement in school and success in life.

Students must successfully complete the following course of study:

- 4 credits of English
- 3 credits of Math (Algebra I, Geometry, Algebra II) – for students entering 9<sup>th</sup> grade prior to the fall of 2009  
[4 credits of Math (Alg. I / Data Analysis, Intermediate Alg. / Data Analysis, Geometry, Alg II. / Data Analysis) – for students entering 9<sup>th</sup> grade in the fall of 2009 and thereafter]
- 3 credits of Lab Science (Biology, Chemistry, Physics) preferred
- 3 credits of Social Studies (Government, U.S. History, World History)
- 2 credits of the same World Language

Students must have a minimum 2.5 non-weighted GPA to receive a Maryland Scholars Certificate. Students with a minimum 3.5 non-weighted GPA will be indicated by a special endorsement on the certificate.

## RIGOROUS HIGH SCHOOL PROGRAM

The Maryland State Department of Education defines a rigorous high school program as one where graduates master four of the six performance indicators:

- Two or more credits in the same World Language with a grade of B or better;
- One or more credits in mathematics courses at a level higher than Algebra II and Geometry with a grade of B or better;
- Four credits of science with a grade of B or better;
- Two or more credits of approved advanced technology education with a grade of B or better;
- A score of 1000 or higher on SAT-1 or a score of 20 or higher on ACT, or both; and
- A cumulative grade point average of 3.0 or higher on a 4.0 scale.

When making course selections students and parents should strive to meet or exceed the minimum standards for a rigorous high school program.

## CAREER AND TECHNOLOGY EDUCATION Completer Programs - Value Added Education

<b>Program</b>	<b>State or National Affiliation</b>	<b>Value Added</b>
Accounting		Transcripted Credits
Administrative Assistant		Articulated Credits
Allied Health	Maryland Board of Nursing	Certified Nursing Assistant/Geriatric Nursing Assistant
Animal & Veterinary Science		Articulated Credits
Auto Service Technology	National Automotive Technicians Education Foundation (NATEF)	Articulated Credits ASE Certification
Biomedical Sciences	Project Lead The Way	Transcripted Credits
Building Maintenance	National Center for Construction Education and Research (NCCER)	National Registry (NCCER)
Business Administration & Management		Articulated Credits
Carpentry	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	Articulated Credits National Registry (NCCER) ABC Apprenticeship
Collision Repair Technology	National Automotive Technicians Education Foundation (NATEF)	Articulated Credits (Pending) ASE Certification
Computer Technology	College Board – Advanced Placement	Articulated Credits AP – Computer Science A
Cosmetology	Maryland Board of Cosmetology	Maryland Certification
Culinary Arts	ProStart; American Culinary Federation (ACF)	Articulated Credits
Drafting		Articulated Credits
Early Childhood Education	MSDE Office of Child Care	Articulated Credits Maryland Certification
Education MS-HS/Teacher Academy of Maryland		Transcripted Credits
Electrical Construction	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	Articulated Credits National Registry (NCCER) ABC Apprenticeship
Emergency Services Technician	Maryland Fire & Rescue Institute (MFRI)	Articulated Credits
Engineering	Project Lead The Way	Transcripted Credits
Financial Services/Academy of Finance	National Academy Foundation	Transcripted Credits
Floral Design		Articulated Credits
Food Services and Hospitality Management	ProStart, National Restaurant Association Education Foundation (NRAEF)	Articulated Credits
Heavy Equipment and Truck Technology	National Automotive Technicians Education Foundation (NATEF)	Articulated Credits ASE Certification
Horticulture		Articulated Credits
HVAC	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	Articulated Credits National Registry (NCCER) ABC Apprenticeship
Landscaping Design & Construction		Articulated Credits
Manufacturing and Machine Technology	National Institute of Metal Working Skills (NIMS)	Articulated Credits
Marketing		Articulated Credits
Masonry	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	Articulated Credits National Registry (NCCER) ABC Apprenticeship
Print Production	Graphic Arts Education and Research Foundation (GAERF) – PrintED	Articulated Credits
Technical Support and Networking	Cisco Systems	Articulated Credits
Textiles and Fashion Careers		Articulated Credits
Video Production		Articulated Credits
Welding Technology	National Center for Construction Education and Research (NCCER) American Welding Society (AWS)	Articulated Credits (Pending) National Registry (NCCER) AWS Certification
Wildlife Natural Resource Management		Articulated Credits

# COURSE OFFERINGS

**2009-2010 = ODD Year**  
**2010-2011 = EVEN Year**

**2011-2012 = ODD Year**  
**2012-2013 = EVEN Year**

## **AGRISCIENCE**

### **AGRICULTURAL COOPERATIVE WORK EXPERIENCE**

Course #: 504106 (Academic)                      ½ credit  
                  504116 (Academic)                      1 credit  
                  504126 (Academic)                      2 credits

Students in an agricultural program, in the senior year, may earn up to two credits for their work experience in an agricultural-related business. The work experience in a business setting will be an extension of the classroom program and provide the student with on the job experiences. The place where the student works must be pre-approved by the program coordinator. An agreement detailing the cooperative work experiences to be gained by the student will be agreed upon and signed by the employer, student, student's parents and the program coordinator. Experiences gained in this course will be valuable as the student transitions from school to the world of work or post-secondary education.

*Prerequisites and other notes: This course is part of a completer program.*

### **AGRICULTURAL MECHANICAL TECHNOLOGY**

Course #: 501117 (Articulated)                      1 credit

This course is designed to familiarize the student with the basic theory and specialized skills relative to mechanics in the diverse field of agriculture. Topics will include safety, material handling, tool identification and use, construction systems, electrical systems, masonry systems, environmental systems, the selection and use of surveying equipment, and water management system installation and service.

*Prerequisites and other notes: This course is part of a completer program.*

### **ANIMAL CARE AND MANAGEMENT**

Course #: 502817 (Articulated)                      1 credit

This course is designed to introduce students to small and large animal care. Major topics of concentration include the care and health of popular species, digestion and nutrition, reproduction and breeding/genetics, animal breeds, external anatomy, common diseases, handling, and housing. This course will explore the care and well being of animals and aid in the development of knowledge and understanding required to study more advanced topics of animal care in Veterinary Science. *Prerequisites and other notes: This course is part of a completer program.*

### **ENVIRONMENTAL CONSERVATION**                      *Course is only offered ODD YEARS.*

Course #: 502417 (Articulated)                      1 credit

This course is designed to introduce students to the diverse areas of the environment - its principles, practices, and career opportunities. Students will study the policies and conservation management practices related to water, soil, air, forests, wildlife wetlands and aquatic life, land use, energy resources, and the recreational uses of these resources.

*Prerequisites and other notes: This course is open to students in grades 10-12. This course is part of a completer program. Ten (10) service-learning hours may be earned.*

### **EQUINE SCIENCE**                      *Course is only offered EVEN YEARS.*

Course #: 503006 (Academic)                      ½ credit

This course is designed to study the raising and caring of horses and ponies. Topics include horse breeds, selection and judging, feed and nutrition, disease and parasites, training, tack, grooming, inheritance and pedigree, safety with horses, facilities for keeping horses, and the laws related to horses.

*Prerequisites and other notes: This course is open to students in grades 10-12.*

### **HORTICULTURE**

Course #: 501517 (Articulated)                      1 credit

This course explores the basic principles of horticulture and practical applications of those principles. Students work with growing plants which are generally used for ornamental purposes and also, depending on the season, vegetable plants. Students study and work in the following areas: greenhouse production, environmental requirements of plants, types of plants, plant propagation, fertilizers, plant pest identification and control, and decorative materials used with plants and flowers. Students also study nursery and landscaping, greenhouse management, and floriculture.

*Prerequisites and other notes: This course is part of a completer program. Ten (10) service-learning hours may be earned.*

### **INTRODUCTION TO AGRISCIENCE AND TECHNOLOGY**

Course #: 500016 (Academic)                      1 credit

Students will be introduced to the vast and modern field of Agriscience. This course is an overview of many agriculture related industries, their products, uses, and current issues. Students will explore the basic principles of agriculture, animal care, horticulture, agriculture mechanics, natural resources, aquaculture, wildlife, forestry, and leadership development. This course is recommended as the first course in the sequence of the Agriscience completer programs. *Prerequisites and other notes: This introductory course is recommended for students in grades 9 and 10 and is part of a completer program.*

### **LANDSCAPING**                      *Course is only offered ODD YEARS.*

Course #: 502507 (Articulated)                      ½ credit

This course is designed to offer students an opportunity to learn the essential skills that will enable them to practice elements of home beautification. This course is helpful in assisting the student to establish and maintain an attractive home and grounds. Course content will include the following basic areas: planning landscape, designs for new homes; maintaining flowers, shrubs, and trees; and using environmental control to improve and maintain the home and grounds. *Prerequisites and other notes: This course is part of a completer program.*

**LEADERSHIP DEVELOPMENT***Course is only offered EVEN YEARS.*

Course #: 503306 (Academic)

½ credit

This course is designed to acquaint students with personal and group leadership skills needed to effectively participate in student organizations. Course content will include units in principles of leadership, parliamentary law, speaking in public, effective communication and human relations skills, and positive public relations.

**VETERINARY SCIENCE**

Course #: 503417 (Articulated)

1 credit

This course is designed to extend student knowledge and understanding of veterinary practice in small and large animals. Students will explore future employment opportunities and analyze a variety of career paths in veterinary medicine. Topics will include work in animal nutrition, anatomy, physiology, diseases, veterinary equipment, genetics, breeding, euthanasia, and veterinary office practices. *Prerequisites and other notes: This course is open to students who have completed Animal Care & Management and Biology (which may be taken concurrently). This course is part of a completer program. Ten (10) service-learning hours may be earned.*

**WILDLIFE MANAGEMENT***Course is only offered ODD YEARS.*

Course #: 502107 (Articulated)

½ credit

Wildlife Management introduces students to wildlife in the Eastern United States. Emphasis is placed on land and marine mammals and fish. Students learn identification, habits, habitat requirements, and ecosystem/food chain interactions. Public policies and governmental laws pertaining to wildlife management will be discussed. Career opportunities in wildlife management will be explored. *Prerequisites and other notes: This course is part of a completer program. Ten (10) service-learning hours may be earned.*

**BUSINESS EDUCATION****HONORS ACCOUNTING I**

Course #: 352818 (Honors)

1 credit

Accounting I covers concepts that are equivalent to the first-half of a college accounting class. Students will study accounting as it relates to the business environment. Major units of study will include recording business transactions, the adjusting process, completing the accounting cycle, merchandising, and accounting information systems. *Prerequisites and other notes: Recommended for grades 10 - 12. Financial Management Using Software Applications is a prerequisite or may be taken concurrently. This course is part of a completer program.*

**ACCOUNTING II***Course is only offered ODD YEARS.*

Course #: 353219 (Transcripted)

1 credit

Accounting II covers concepts that are equivalent to the second-half of a college accounting class. Students will practice accounting skills through the use of a simulation. Major units of study will include internal control and cash, receivables, plant assets, intangibles, current liabilities, and payroll. *Prerequisites and other notes: Honors Accounting I is a prerequisite. This course is part of a completer program. Students who successfully complete this course may apply for transcripted credit from Carroll Community College.*

**BUSINESS COMMUNICATIONS AND KEYBOARDING**

Course #: 350616 (Academic)

1 credit

Business Communications and Keyboarding assists students in developing effective workplace communication skills, while gaining the ability to use a keyboard by the touch-key system. The instructional methods for the course require students to develop and work with authentic tasks on an individual and group basis. This course will include training in oral, written and computerized technical communication. This will involve listening and responding; providing instructions; written business communication, through letters, reports and financial analysis; presentation skills and workplace readiness skills. This course provides a foundation for all business education courses, as well as preparation for all work based learning experiences.

**BUSINESS LAW***Course is only offered EVEN YEARS.*

Course #: 354416 (Academic)

1 credit

Business Law introduces the student to his/her legal rights as well as responsibilities. The complexities of our local, state, and federal government make it increasingly necessary to be better informed on law and due process. The course is offered to make students aware of the laws that govern their business and private lives. Topics include government structure, the courts, business crimes, torts, contracts, employment law, property, and business organizations. The problems studied in this course reflect true situations where business law has a major impact on the lives of young people, adults, and businesses. *Prerequisites and other notes: Recommended for grades 11-12.*

**BUSINESS PRINCIPLES AND PRACTICES**

Course #: 350517 (Articulated)

1 credit

Business Principles and Practices will provide a comprehensive study of the many functions and aspects of today's business world. Business structures, economic systems, technological communication, marketing skills, human resource functions and basic business finances will be considered through practical application and examples and the development of a business plan. *Prerequisites and other notes: This course is a part of a completer program.*

**DESKTOP PUBLISHING**

Course #: 351816 (Academic)

1 credit

Desktop publishing is recommended for the advanced students wishing to enhance their computer skills with publishing, drawing, painting, and graphics software. The course will consist of preparation and production of materials for advertising and multimedia presentations. This will include brochures, pamphlets, newspapers, documents, and graphics for use within and outside the school. The course requires skills in keyboarding. *Prerequisites and other notes: The course is recommended for grade 11 or 12 students who have completed Business Communications and Keyboarding or can demonstrate basic proficiencies in keyboarding skills, at a level of 30 wpm.*

## **FINANCIAL MANAGEMENT USING SOFTWARE APPLICATIONS**

Course #: 355617 (Articulated) 1 credit

This course provides students with the knowledge and practice needed to make informed financial decisions and successfully manage financial resources. The course begins with the study of personal financial literacy and is extended to connect this content to banking, investing, borrowing, and risk management in the business world. Students will develop skills in business applications of computer spreadsheet software. *Prerequisites and other notes: This course meets the graduation requirement in financial literacy for students entering 9<sup>th</sup> grade in 2007 and beyond. Business Communications and Keyboarding or demonstrated keyboarding proficiency at a level of 30 wpm is a prerequisite. This course is part of a completer program.*

## **OFFICE SYSTEMS MANAGEMENT** *Course is only offered ODD YEARS.*

Course #: 352517 (Articulated) 1 credit

This course provides students with an in-depth study of the structure and organization of office and business systems. Students develop managerial and technical skills for business support operations through applied learning. Business simulations and problem-solving skills are used in applying emerging technologies and software applications to complete office operations, exhibit appropriate teamwork and leadership skills, and demonstrate a knowledge of values and behaviors related to being ethically responsible. *Prerequisites and other notes: Business Communications and Keyboarding, Business Principles and Practices, and Financial Management Using Software Applications are prerequisites. This course is part of a completer program.*

## **ADVANCED SOFTWARE APPLICATIONS** *Course is only offered ODD YEARS.*

Course #: 355717 (Articulated) 1 credit

This course develops advanced skills in software applications. Students will prepare for the expert level of Microsoft Office Specialist (MOS) certification program. Students will be required to think analytically, manipulate information and use the computer as a productivity tool using the programs that are a part of Microsoft Office XP. *Prerequisites and other notes: Business Communications and Keyboarding, Business Principles and Practices, and Financial Management Using Software Applications are prerequisites. This course is part of a completer program.*

## **E-COMMERCE AND ENTREPRENEURSHIP** *Course is only offered EVEN YEARS.*

Course #: 354517 (Articulated) 1 credit

This course will prepare students to incorporate e-business as an essential component of the evolving economy. In addition, students will develop competencies to equip them to be productive employees and entrepreneurs in current business climates. Content includes: conducting online research, analyzing web sites targeting the international marketplace, developing business plans, purchasing and selling products, completing cost analyses, incorporating effective marketing strategies, and designing e-business web pages. *Prerequisites and other notes: Business Principles and Practices and Financial Management Using Software Applications are prerequisites. This course is part of a completer program.*

## **MARKETING – THREE COURSE SEQUENCE**

### **MARKETING**

Course #:506117 (Articulated) 1 credit

Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives. Marketing students become competent in these business functions on the career sustaining level. Career goals range from becoming a master employee to business management to entrepreneurship. Topics studied include: human relations and communications; economics; marketing; merchandising; retail, industrial, and direct-selling; advertising and display; store operations; personnel; and control. Students may take advantage of the leadership opportunities, skill and career workshops, and competitive events in a co-curricular student organization at the local, state, regional, and national levels. *Prerequisites and other notes: This course is part of a completer program.*

### **ADVANCED MARKETING** *Course is only offered even YEARS.*

Course #:506617 (Articulated) 1 credit

The competencies acquired in Marketing are refined and applied at the marketing specialist level. The business areas studied are personalized to the needs and career goals of each student through classroom activities, participation in projects, cooperative marketing work experience in the business community, and/or management of a working retail store. Specific examples of possible areas of study include: apparel and accessories, finance and credit, food marketing, restaurant marketing and management, general merchandising, advertising and display services, service-station retailing, general marketing, or writing a business plan for starting an enterprise of the student's choice. *Prerequisites and other notes: Completion of Marketing. This course is part of a completer program.*

### **MARKETING COOPERATIVE WORK EXPERIENCE**

Course #: 507007 Articulated ½ credit  
507017 Articulated 1 credit  
507027 Articulated 2 credits

The courses listed below are designed for students to gain cooperative work experience credit during time other than the regular school day:

507107 Articulated ½ credit  
507117 Articulated 1 credit  
507127 Articulated 2 credits  
507137 Articulated 3 credits

Marketing students, in the senior year, may earn up to three additional credits for their marketing related employment outside of the school environment or managing the school store as a part of the Career Connections Program. *Prerequisites and other notes: Completion of or concurrent enrollment in Advanced Marketing. This course is part of a completer program.*

## CAREER AND TECHNOLOGY EDUCATION (OCCUPATIONAL)

### ALLIED HEALTH CAREERS

Course #: 555936-I (Academic)	3 credits
556506-II (Academic)	½ credit
556516-II (Academic)	1 credit
556526-II (Academic)	2 credits
556536-II (Academic)	3 credits

This program prepares the individual to function as an assistant/technician to health care professionals. The individual will acquire the knowledge and skills required to provide basic health care to clients/patients with a variety of health care needs. This program includes practical application in clinical laboratory, on-site observations and planned clinical experiences in several health care service areas. Student clinical experiences are supervised by health care professionals. In Allied Health I, completion of the certified nursing assistant program is available to the student. In Allied Health II, students will be introduced to several health care experiences including but not limited to, surgical tech, geriatric nursing assistant, physical therapy, occupational therapy, health care technician, diagnostic and medical lab technician and dental assistant.

*Prerequisites and other notes: Completion of Human Anatomy and Physiology is a prerequisite. Parents will be responsible for transportation for related work based learning experiences. This course is part of a completer program.*

### AUTO SERVICE TECHNOLOGY

Course #: 551337-I (Articulated)	3 credits
551537-II (Articulated)	3 credits

This program provides the necessary knowledge and skills to enter the automotive service field. Students learn about all the major systems of the automobile including the electrical, lubrication, fuel, cooling, ignition, suspension, braking, engine, transmission, and emissions. Training includes the use of technical manuals, computerized diagnostic equipment, and a variety of hand and power tools. At the end of the program, students take Automotive Service Excellence (ASE) Certification Tests (or approved end of course assessments) for Brakes, Electrical/Electronic Systems, Engine Performance, and Suspension & Steering. *Prerequisites and other notes: This course is part of a completer program.*

### BUILDING MAINTENANCE

Course #: 559736-I (Academic)	3 credits
559836-II (Academic)	3 credits

Students in this program will be provided the opportunity to acquire the knowledge and experience needed to work in a wide range of entry-level positions concerned with maintaining commercial buildings. Skills learned in this program will help students perform minor and routine painting, plumbing, electrical wiring, and other related maintenance activities, using appropriate tools and equipment. Students will also receive experience in shipping, receiving, and organizing supplies needed for maintenance and repair work. Program completers should be able to demonstrate a wide range of skills needed by employees in the expanding building engineering industry. Students are required to take the National Construction Career Test (NCCT) titled Core-Introductory Craft Skills at the end of Level I. *Prerequisites and other notes: This course is part of a completer program.*

### CAREER AND TECHNOLOGY EDUCATION RESEARCH AND DEVELOPMENT

Course #: 559906 (Academic)	½ credits
559916 (Academic)	1 credits
559926 (Academic)	2 credits
559936 (Academic)	3 credits

This course is designed primarily for those students who wish to take additional course work in a program at one of the Career and Technology Centers. Learning may focus on research and development projects/activities within the classroom/lab setting or at a local business through cooperative work experience. Detail for the student's individual learning plan will be worked out with the respective program instructor.

*Prerequisites and other notes: Must complete appropriate prerequisites and obtain approval of the instructor.*

### CARPENTRY

Course #: 551637-I (Articulated)	3 credits
551837-II (Articulated)	3 credits

This program prepares students to be successful in the construction industry. The program focuses on general construction trade skills such as safety with hand and power tools, blueprint reading, construction math, rigging, and employability skills. Units of study specific to carpentry include: building materials; foundations; concrete forms; floor systems; framing; window and door installation; site layout; exterior finishing; roofing applications; thermal and moisture protection; and, interior finish. Students are required to pass the National Construction Career Test (NCCT) titled Core-Introductory Craft Skills to achieve level II status in construction programs. At the end of level II, students take the NCCT in Carpentry.

*Prerequisites and other notes: This course is part of a completer program.*

### COLLISION REPAIR TECHNOLOGY

Course #: 550937-I (Articulated)	3 credits
551137-II (Articulated)	3 credits

This program stresses the development of the skills and knowledge necessary to succeed in the field of collision repair and refinishing. Students will learn how to repair and replace automotive structural and non-structural components. This includes replacing panels, frame repair, refinishing, straightening metal, replacing glass, and paint preparation. Emphasis will also be placed on repairing plastic, estimating repair cost, welding, cutting, minor automotive service repair, and customization. At the end of the program, students take Automotive Service Excellence (ASE) Certification Tests (or approved end of course assessments) for Paint & Refinishing and Non-Structural Analysis & Damage Repair. *Prerequisites and other notes: This course is part of a completer program.*

## **HONORS COMPUTER TECHNOLOGY**

Course #: 554538-I (Honors) 3 credits  
554539-II (AP) 3 credits

Computer Technology is a course designed to give students a survey of computer programming. Computers are studied to familiarize the student with the functions of hardware and software. Computer number systems, software packages, and languages are introduced and applications examined. Students completing the two-year program are provided with the opportunity to understand and use object-oriented programming algorithms with appropriate data structures to solve problems. The computer center provides the opportunity for "hands on" instruction, practical projects, and familiarity with equipment and terms. The students are also exposed to the programming languages of JAVA, BASIC, VISUAL BASIC, TURBO C++, and HTML. *Prerequisites and other notes: This course is open to students in grades 11-12 who have completed Intermediate Algebra/Data Analysis and Business Communications and Keyboarding or can demonstrate basic proficiencies in keyboarding skills at a level of 30 wpm. Computer Technology II students will have the opportunity to prepare for the AP Computer Science A examination. This course is part of a completer program.*

## **COSMETOLOGY CAREERS – THREE COURSE SEQUENCE**

### **PRINCIPLES AND PRACTICES OF COSMETOLOGY (2<sup>nd</sup> Semester Junior Year)**

Course #: 552736 (Academic) 3 credits

This course provides an introduction to the field of cosmetology. Students develop and practice basic skills in cosmetology, develop a broad understanding of the variety of career options available to a licensed cosmetologist, and learn how science and math are fundamental aspects of the practice of cosmetology. *Prerequisites and other notes: Human Anatomy and Physiology is a prerequisite or may be taken concurrently. All other course requirements for graduation should be completed by the end of grade 11.*

### **ADVANCED COSMETOLOGY: THEORY AND APPLICATION (1<sup>st</sup> Semester Senior Year)**

Course #: 552836 (Academic) 3 credits

This course allows students to develop and practice more advanced techniques in the field of cosmetology. Students will demonstrate knowledge and skill in the areas of esthetics, thermal hair procedures and hair color; and artificial nail techniques. They will apply foundation knowledge in science as it relates to cosmetology and practice technical and workplace skills in a school salon setting. *Prerequisites and other notes: Upon successful completion of the first 1,000 hours of the program and the instructor's recommendation, students may apply for the 1000-hour letter to be eligible to participate in up to 300 hours of a supervised work-based experience in a salon setting.*

### **MASTERY OF COSMETOLOGY (2<sup>nd</sup> Semester Senior Year)**

Course #: 554936 (Academic) 3 credits

This course provides students the opportunity to further refine and apply skills that support all aspects of the cosmetology industry. It will assist in preparing students to obtain employment and advance in the field of cosmetology upon passing the State Board of Cosmetologists' licensing examination. *Prerequisites and other notes: Students are required to take the State Board of Cosmetologists' licensing examination at the conclusion of this class.*

## **CULINARY ARTS – AMERICAN CULINARY FEDERATION (ACF) – TWO OUT OF THREE COURSE SEQUENCE**

### **CULINARY ARTS I – CULINARY BASICS**

Course #: 558837 (Articulated) 3 credits

This course is the introduction to the fundamental concepts and techniques in the profession of culinary arts. It provides hands-on clinical experience through school-based enterprises, giving the students the opportunity to develop the technical skills required in future culinary and baking courses as well as the foodservice 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. Students participate in demonstration and group exercise to supplement their development of technical skills and knowledge. *Prerequisites and other notes: This course is part of a completer program.*

### **CULINARY ARTS II – PROFESSIONAL COOKING**

Course #: 558937 (Articulated) 3 credits

This course continues to build on the foundation concepts and techniques from the Culinary Basics course. Students will be instructed on the 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 the students' development of technical skills and knowledge. *Prerequisites and other notes: Culinary Arts I. This course is part of a completer program.*

### **CULINARY ARTS II - PROFESSIONAL BAKING AND PASTRY**

Course #: 559237 (Articulated) 3 credits

Students in this course explore the fundamental concepts and techniques in baking. They will be instructed in the fundamentals of baking science, terminology, equipment, ingredients, weights and measurements, formula conversion and costing of recipes while maintaining the professional standards of the foodservice industry. Students will prepare a variety of baked goods including breads, rolls, pastries, cakes, tortes, pies, and cookies. Students participate in demonstrations, group exercise and school-based enterprises to supplement the students' development of technical skills and knowledge. *Prerequisites and other notes: Culinary Arts I. This course is part of a completer program.*

## **DRAFTING**

Course #: 553037-I (Articulated) 3 credits  
553237-II (Articulated) 3 credits

This program is designed for study of technical communication. Through individual and group instruction, students are prepared to pursue drafting careers in engineering, surveying, construction, manufacturing, and other specialized fields. Projects completed by other career and technology

departments are designed and drawn within this program. Frequently, students assist with community projects through design work and drawings. Students with personal interests are encouraged to develop individual projects. The program is intended to provide the student with the required technical terms for blueprint reading in any technical field. All of the learning experiences in this course have direct application to education and life experiences. *Prerequisites and other notes: This course is part of a completer program.*

### **ELECTRICAL CONSTRUCTION**

Course #: 553437-I (Articulated) 3 credits  
553637-II (Articulated) 3 credits

Students study the generation and transmission of electricity as it applies to home and commercial wiring. Practical work is performed on the installation and functions of wiring apparatus, fixtures, motors, control panels, and insulating materials. Instruction in the electrical wiring code published by the National Board of Fire Underwriters is included in this program. Students are required to pass the National Construction Career Test (NCCT) titled Core-Introductory Craft Skills to achieve level II status in construction programs. At the end of level II, students will take the NCCT in Electrical. *Prerequisites and other notes: This course is part of a completer program.*

### **EMERGENCY SERVICES TECHNOLOGY**

Course #: 554146 (Academic) 4 credits

This instructional program prepares students for careers in firefighting and emergency medical technology. It includes instruction in fire department organization; the use of water and other materials in firefighting and various kinds of equipment such as extinguishers, hoses, ropes, ladders, self contained breathing apparatus, hydrants, and standpipe and sprinkler systems; entry and rescue and salvage practices and equipment; and fire and arson inspection and investigation techniques. This course also includes emergency medical training (EMT). *Prerequisites and other notes: Parents will be responsible for transportation to this class and related work based learning experiences. This course is part of a completer program.*

### **FLORAL DESIGN**

Course #: 555037-I (Articulated) 3 credits  
555137-II (Articulated) 3 credits

This course will explore the skills required to work with a variety of floral materials in a commercial or retail/sales environment. Topics will include the proper selection, care and handling of fresh flowers, and design principles as they relate to floral arrangements. In addition, students will develop work habits such as the wise use of time and materials, cooperation, the appropriate use of tools and equipment, and resource management. Those skills will be put to practical use as the students will participate in a school-based enterprise. *Prerequisites and other notes: This course is part of a completer program*

### **HVAC: HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION**

Course #: 550537-I (Articulated) 3 credits  
550737-II (Articulated) 3 credits

This course is designed to give students basic knowledge and skill in the development of the principles and practices of the air conditioning and refrigeration trade. This course will include the following: sizing equipment, duct layout, installation, repair and maintenance of oil, gas, electric and heat pump forced-air heating systems. Also residential and commercial air conditioning and light commercial refrigeration units are included. Students will learn the proper use and care of tools, parts and test equipment, and how to analyze, adjust, troubleshoot and test such systems. Related study will include math, measuring instruments, blueprint reading, basic electricity, motors, and instruction to trade occupations. Students are required to pass the National Construction Career Test (NCCT) titled Core-Introductory Craft Skills to achieve level II status in construction programs. At the end of level II, students will take the NCCT in HVAC. *Prerequisites and other notes: This course is part of a completer program.*

### **HEAVY EQUIPMENT AND TRUCK TECHNOLOGY**

Course #: 558237-I (Articulated) 3 credits  
558337-II (Articulated) 3 credits

In Heavy Equipment and Truck Technology, students will develop the knowledge and skills necessary to take the ASE Medium/Heavy Truck Technician exams for Suspension & Steering, Brakes, Preventive Maintenance, Diesel Engines and Electrical/Electronics. Students develop diagnostic, technical, and academic skills through classroom instruction and hands-on applications. Through the theory and real-world experiences, students master the concepts and the ability to identify and perform necessary repair tasks utilizing the latest techniques and applications on a variety of equipment and Class 4 through Class 8 trucks and tractors. In addition, this course will address personal and environmental safety practices associated with clothing; respiratory protection; eye protection; entry level medium/heavy truck service technology principles and practices; hand tools; power tools/equipment; safety principles; and, disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations. At the end of the program, students take Automotive Service Excellence (ASE) Certification Tests (or approved end of course assessments) for Diesel Engines, Suspension & Steering, Brakes, Electrical/Electronic Systems, and Preventative Maintenance Inspection. *Prerequisites and other notes: This course is part of a completer program.*

### **LANDSCAPING DESIGN & CONSTRUCTION**

Course #: 555237-I (Articulated) 3 credits  
555337-II (Articulated) 3 credits

This course will thoroughly explore the knowledge and skills required to design, establish, and maintain residential and commercial grounds. Topics will include planning landscapes, residential and commercial designs, and the growth, sale, and installation of landscape materials. Students will experience these areas of study in an intense, hands-on environment, enabling them to put these topics to practical use. *Prerequisites and other notes: This course is part of a completer program.*

### **MANUFACTURING AND MACHINE TECHNOLOGIES**

Course #: 558637-I (Articulated) 3 credits  
558737-II (Articulated) 3 credits

This program prepares students for a beginning career as a machinist, production operator, quality control technician, or manufacturing engineering technologist in the computer-enhanced manufacturing environment. The program focuses heavily on hands-on experiences using industrial tools and advanced computer numerically controlled (CNC) equipment. Machinists use their knowledge and understanding of metals and their skills with tools to design, plan, and carry out the processes needed to make products with precise specifications. An engineering technologist works closely with engineers to design, develop, and test industrial and consumer products by applying mathematics and science. Students will learn about workplace safety, teamwork, metallurgy, computer aided manufacturing software, robotics, control systems, project management, fabrication, lean manufacturing, and quality assurance. Throughout the course, students will work toward specific certifications from the National Institute of Metalworking Skills (NIMS). *Prerequisites and other notes: This course is part of a completer program.*

## **MASONRY**

Course #: 555437-I (Articulated) 3 credits  
555637-II (Articulated) 3 credits

This program provides training in the skills necessary to lay brick, block, veneer, and dry-stack stone, flagstone, ceramic tile, and some concrete work. Layout work, bonds, patterns, blueprint reading, estimating, reinforced masonry, and specifications are also studied. Training is structured according to local requirements and is designed to prepare the student for gainful employment as an advanced apprentice. Students are required to pass the National Construction Career Test (NCCT) titled Core-Introductory Craft Skills to achieve level II status in construction programs. At the end of level II, students will take the NCCT in Masonry. *Prerequisites and other notes: This course is part of a completer program.*

## **PRINT PRODUCTION**

Course #: 553937 (Articulated) 3 credits

Students learn the basic skills needed for a career in printing or graphic design. Students use Adobe Illustrator, Adobe Photoshop, and Adobe InDesign software to prepare publications. Design, layout, prepress, press, digital file prep, binding, and finishing is the focus. Students design products such as packages, advertisements, logos, booklets, books, brochures, and signs. At the end of the program, students are required to take the PrintED exams titled Introduction to Graphic Communications and Digital File Preparation. *Prerequisites and other notes: Graphic Communications (1 credit) or Commercial Art (1 credit). This course is part of a completer program.*

## **TECHNICAL SUPPORT AND NETWORKING**

Course #: 557637-I (Articulated) 3 credits  
557737-II (Articulated) 3 credits

This course focuses on the operation and maintenance of computers and networks as related to the IT profession, preparing students for careers in the networking and technical support fields. Students will analyze, troubleshoot, operate, and provide normal maintenance on computers and networking equipment. Networking emphasis is based on the Cisco Certified Networking Associate (CCNA) Certification. Students will learn to design, implement, and maintain networks using Cisco interconnection devices. Instruction is designed to meet the functional objectives of business networking and customer support requirements. This course prepares students for Cisco certification. *Prerequisites and other notes: Students must demonstrate basic proficiencies in keyboarding skills. This course is part of a completer program.*

## **TEXTILES AND FASHION CAREERS**

Course #: 554237-I (Articulated) 3 credits  
554437-II (Articulated) 3 credits

This course provides students with an opportunity to experience a variety of opportunities and practice skills in the textiles and fashion career areas. Students will participate in learning activities associated with fashion design, pattern making, textiles design, garment construction, fashion merchandising, interior design, upholstery, and retail careers. Special attention will be given to the use of computer-aided design to create flat patterns and fashion designs. *Prerequisites and other notes: This course is part of a completer program.*

## **VIDEO PRODUCTION**

Course #: 559337 (Articulated) 3 credits

Students learn the basic skills for a career in television or corporate video production. Topics covered include lighting and sound for video, video graphics, animation, and script writing. *Prerequisites and other notes: Graphic Communications (1 credit), Commercial Art (1 credit), or Script Writing and Video Production (1 credit). This course is part of a completer program.*

## **WELDING TECHNOLOGY**

Course #: 559037-I (Articulated) 3 credits  
559137-II (Articulated) 3 credits

This program is a study and application of the process in which metal is melted and fused together by heat producing methods. The program is designed to train students in the basic knowledge and skills of the welding trade. Instruction will focus on using oxyacetylene, electric arc, TIG (Tungsten Inert Gas), MIG (Metal Inert Gas), and CNC (Computer Numerically Controlled) robotic plasma cutting equipment. Brazing, soldering, cutting, hard surfacing, and job fabrication from sketches and blueprints are covered. Individual and group projects are undertaken. Students are eligible to take certified welder's examinations. Students are required to pass the National Construction Career Test (NCCT) titled Core-Introductory Craft Skills to achieve level II status in construction programs. At the end of level II, students will take the NCCT in Welding. *Prerequisites and other notes: This course is part of a completer program.*

## **EARLY CHILDHOOD EDUCATION – FOUR COURSE SEQUENCE**

### **HONORS CHILD AND ADOLESCENT DEVELOPMENT**

Course #:401818 Honors 1 credit

This course focuses on human development from birth through adolescence. Emphasis is placed on theories of physical, cognitive and psychosocial development, the effect of heredity and the environment, the role of caregivers and the family, health and safety concerns, and contemporary issues. Students explore special challenges to growth and development. Students will have opportunities for guided observation of children from birth through adolescence in a variety of settings to help students further understand theories of human development. Students will work on the process of developing components of a working professional portfolio. *Prerequisites and other notes: This course is the first in a series of courses in two*

articulated completer programs, Education – Middle and High School and Early Childhood Education. It is a prerequisite to any other courses in these programs and additional child development courses. It is open to students in grades 10-12.

### **CHILD DEVELOPMENT LABORATORY**

Course #: 402217 (Articulated) 1 credit

In this course, students will study children ages three to five, with the primary emphasis being placed on actual experience and observation of three and four year-old children in the preschool laboratory. Classroom and individualized study will increase knowledge of the development of children. Students will study childcare services, safety and health in the preschool, child guidance and discipline, operation of preschool, and the exceptional children. *Prerequisites and other notes: Open to students in grades 10-12 who have completed Child and Adolescent Development. 30 hours of student Service-Learning credit may be earned. This course is part of a completer program.*

### **ADVANCED LABORATORY-CHILD DEVELOPMENT**

Course #: 402317 (Articulated) 1 credit

This course is for students who show a special interest in child development. Advanced work is offered in areas such as childhood personality theories and behavior patterns. Emphasis is placed on expanding the students' knowledge of careers in child development. Topics of study include preschool operation, nurturing the components of intelligence, and school readiness. The laboratory preschool will provide students with an opportunity to develop and integrate preschool learning experiences. This program is recommended for students interested in early childhood and elementary education. *Prerequisites and other notes: Child Development Laboratory. 30 hours of student Service-Learning credit may be earned. This course is part of a completer program.*

### **EARLY CHILDHOOD EDUCATION SEMINAR AND INTERNSHIP**

Course #:401327 (Articulated) 2 credits

This is the culminating course of the Early Childhood Education completer program. Students will have an opportunity to integrate content and pedagogical knowledge in an early childhood educational setting. They will extend and apply their knowledge about the young child and teaching in a classroom setting under the supervision of a mentor teacher. Students will finalize their working portfolio and present it for review and critique. *Prerequisites and other notes: Advanced Laboratory Child Development. This course is part of a completer program.*

## **EDUCATION - MIDDLE AND HIGH SCHOOL - TEACHER ACADEMY OF MARYLAND (TAM) – FOUR COURSE SEQUENCE**

### **HONORS CHILD AND ADOLESCENT DEVELOPMENT**

Course #:401818 Honors 1 credit

This course focuses on human development from birth through adolescence. Emphasis is placed on theories of physical, cognitive and psychosocial development, the effect of heredity and the environment, the role of caregivers and the family, health and safety concerns, and contemporary issues. Students explore special challenges to growth and development. Students will have opportunities for guided observation of children from birth through adolescence in a variety of settings to help students further understand theories of human development. Students will work on the process of developing components of a working professional portfolio. *Prerequisites and other notes: This course is the first in a series of courses in two articulated completer programs, Education – Middle and High School and Early Childhood Education. It is a prerequisite to any other courses in these programs and additional child development courses. It is open to students in grades 10-12.*

### **HONORS TEACHING AS A PROFESSION**

Course #:560318 Honors 1 credit

This course focuses on the profession of teaching – its history, purposes, issues, ethics, laws and regulations, role and qualifications. Emphasis is placed on identifying the current, historical, philosophical and social perspectives of American education, including trends and issues. Students will explore major approaches to human learning. Students will participate in guided observations and field experiences in multiple settings to help them assess their personal interest in pursuing careers in this field and to identify effective learning environments. Students will continue to develop the working professional portfolio. *Prerequisites and other notes: Child and Adolescent Development. This course is part of a completer program.*

### **FOUNDATIONS OF CURRICULUM AND INSTRUCTION**

Course #: 560419 (Transcribed) 1 credit

This course explores curriculum delivery models in response to the developmental needs of all children. Emphasis is placed on the development of varied instructional materials and activities to promote learning, classroom management strategies, and a supportive classroom environment. Students will explore basic theories of motivation that increase learning. Students will participate in guided observations and field experiences to critique classroom lessons in preparation for developing and implementing their own. Students will continue to develop the working professional portfolio. *Prerequisites and other notes: Teaching As A Profession (may be taken concurrently). This course is part of a completer program.*

### **HONORS EDUCATION ACADEMY INTERNSHIP**

Course #: 560518 Honors 1 credit  
#: 560528 Honors 2 credits

This is the culminating course of the Education Academy completer program. Students will have an opportunity to integrate content and pedagogical knowledge in an educational area of interest. They will extend and apply their working portfolio and present it for review and critique. *Prerequisites and other notes: Foundations of Curriculum and Instruction. This course is part of a completer program.*

## **PROJECT LEAD THE WAY—BIOMEDICAL SCIENCES – FOUR COURSE SEQUENCE**

### **HONORS PRINCIPLES OF BIOMEDICAL SCIENCES**

Course #: 556918 (Honors) 1 credit

This course is an introduction to the biomedical sciences through hands-on projects and problems. 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. Key biological concepts including homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease are embedded in the curriculum. Engineering principles including the design process, feedback loops, fluid dynamics and the relationship of structure to function are also incorporated. This career program is designed for students who have career interests in biomedical research and biotechnology. Student interested in

patient care should pursue the Allied Health Careers program. *Prerequisites and other notes: This 11<sup>th</sup> grade class is the first course of a four credit career and technology education completer program. Student must have completed Intermediate Algebra/Data Analysis and a college preparatory science class in both 9<sup>th</sup> and 10<sup>th</sup> grades. A minimum of one credit each in both college preparatory math and science is required in both 11<sup>th</sup> and 12<sup>th</sup> grades.*

### **HONORS HUMAN BODY SYSTEMS**

Course #: 557018 Honors 1 credit

This course will engage students in the study of the human body and its physiology, especially in relationship to human health. Students will use a variety of monitors to examine body systems at rest and under stress, and observe the interactions between the various body systems. Students will use software to design and build systems to monitor body functions. *Prerequisites and other notes: This 11<sup>th</sup> grade class is part of a four credit career and technology education completer program. It may be taken concurrently with Honors Principles of Biomedical Sciences. Student must have completed Intermediate Algebra/Data Analysis and a college preparatory science class in both 9<sup>th</sup> and 10<sup>th</sup> grades. A minimum of one credit each in both college preparatory math and science is required in both 11<sup>th</sup> and 12<sup>th</sup> grades.*

### **HONORS MEDICAL INTERVENTION**

Course #: 557118 Honors 1 credit

Students will use problems and project based instructional strategies to investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation and supportive care. Students will study the design and development of various medical interventions including vascular stents, cochlear implants, and prosthetic limbs. They will review the history of organ transplants and gene therapy, and become aware of current developments. Using 3-D imaging software and current research, students will design and build a model of a therapeutic protein. *Prerequisites and other notes: Honors Human Body Systems. This 12<sup>th</sup> grade class is part of a four credit career and technology education completer program. A minimum of one credit each in both college preparatory math and science is required in 12<sup>th</sup> grade.*

## **PROJECT LEAD THE WAY-ENGINEERING – FIVE COURSE SEQUENCE**

### **PRINCIPLES OF ENGINEERING**

Course #: 540119 (Transcribed) 1 credit

This course provides an overview of engineering and engineering technology. Students develop problem-solving skills with real-world engineering problems. Through theory and practical hands-on experiences, students address the emerging social and political consequences of technological change. Topics include perspectives of engineering, design process, communication and documentation, engineering systems, materials and materials testing, thermodynamics, engineering for quality and reliability, and dynamics. *Prerequisites and other notes: Geometry is recommended as a prerequisite or may be taken concurrently. A math course is required in each year of high school. Students who successfully complete this course may apply for transcribed credit from Rochester Institute of Technology (RIT) and University of Maryland Baltimore County (UMBC).*

### **INTRODUCTION TO ENGINEERING DESIGN**

Course #: 540019 (Transcribed) 1 credit

This class is a part of the Project Lead The Way Engineering Completer Program. This course emphasizes the development of a design. Students use computer software to produce, analyze, and evaluate models of project solutions. Students study the design concepts of form and function and use technology to translate conceptual design into reproducible products. Topics include application of the design process for problem-solving in a team setting, interpretation of sketches to design models; use of mass property calculations to evaluate a parametric model; and cost analysis, quality control, staffing, and packaging for product marketing. *Prerequisites and other notes: Geometry is the recommended prerequisite or may be taken concurrently. This course is part of a completer program. Students who successfully complete this course may apply for transcribed credit from Rochester Institute of Technology (RIT) and University of Maryland Baltimore County (UMBC).*

### **COMPUTER INTEGRATED MANUFACTURING**

Course #: 557819 (Transcribed) 1 credit

This class is a part of the Project Lead The Way Engineering Program. Using solid modeling techniques, this course teaches the fundamentals of computerized manufacturing technology. Students use 3-D computer software to solve design problems. They assess their solutions through mass property analysis, modify their designs, and use prototyping equipment to produce 3-D models. The course includes computer modeling, computer numerical control, computer-aided manufacturing robotics, and the use of flexible manufacturing systems. *Prerequisites and other notes: Introduction to Engineering Design and Principles of Engineering are prerequisites. Intermediate Algebra/Data Analysis or higher is recommended as a prerequisite or may be taken concurrently. A math course is required in each year of high school. This course is part of a completer program. Students who successfully complete this course may apply for transcribed credit from a number of universities.*

### **DIGITAL ELECTRONICS**

Course #: 558219 (Transcribed) 1 credit

This class is a part of the Project Lead The Way Engineering Program. This 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 the electronics we use on a daily basis. Students use industry-standard computer software in testing and analyzing digital circuitry. They design circuits to solve problems, export their designs to a printed circuit auto-routing program, and use appropriate components to build their designs. Topics include analog and digital fundamentals; number systems and binary addition; logic gates and functions; Boolean algebra and circuit design; decoders, multipliers, and demultipliers. *Prerequisites and other notes: Honors Principles of Engineering, Introduction to Engineering Design, and Intermediate Algebra/Data Analysis or higher are recommended as prerequisites or may be taken concurrently. A math class is required in each year of high school. This course is part of a completer program. Students who successfully complete this course may apply for transcribed credit from a number of universities.*

### **HONORS ENGINEERING DESIGN AND DEVELOPMENT**

Course #: 540218 (Honors) 1 credit

This class is the capstone course of the Project Lead The Way Engineering Completer Program. Students will apply what they have learned in academic and prior Project Lead The Way courses as they complete challenging, self-directed projects. Students work in teams to design and build solutions to authentic engineering problems. A community partner engineer will mentor and consult with the teams. Students keep journals of notes, sketches, calculations, and research. Teams present final research papers and defend their projects to an expert panel. *Prerequisites and other notes:*

Computer Integrated Manufacturing, Digital Electronics, and Trigonometry/Pre-Calculus or higher are recommended as a prerequisite or may be taken concurrently. A math class is required in each year of high school. This course is part of a completer program.

## **NATIONAL ACADEMY FOUNDATION (NAF) ACADEMY OF FINANCE – TWO COURSE SEQUENCE**

### **HONORS FINANCE ACADEMY I**

Course #: 352428 (Honors) 2 credits

This course includes content and skills to prepare students for further studies and careers in the world of finance. Topics will include functions of market economies both domestic and international, modern securities organizations, banking, credit, and the insurance industries. Content on English for finance will be infused into the course. *Prerequisites and other notes: Financial Management Using Software Applications and Accounting I are prerequisites or may be taken concurrently. Freshman Seminar is a recommended prerequisite. Honors Finance Academy I is a prerequisite to the required paid summer internship that is a part of the requirements of the National Academy of Finance. This course is part of a completer program.*

### **FINANCE ACADEMY II**

Course #: 352419 (Transcripted) 1 credit

This course includes content and skills to prepare students for further studies and careers in the world of finance. Topics will include concepts in the areas of financial planning and international economics and finance. *Prerequisites and other notes: Accounting II is a prerequisite or may be taken concurrently. Honors Finance Academy I is a prerequisite for this course and taking an entry level college course in finance, which is one of the requirements of the National Academy of Finance. This course is part of a completer program.*

## **ENGLISH**

### **ENGLISH I**

Course #: 050011 (Basic) 1 credit  
050016 (Academic) 1 credit

### **HONORS ENGLISH I**

Course #: 050118 (Honors) 1 credit

The outcomes of this course are aligned with the Core Learning Goals, Expectations, and Indicators of Learning measured by the High School Assessment Program. Students learn the various elements of literature through their study of poetry, drama, the novel, short stories, and selections of non-fiction. Research and writing activities focus on using the writing process to write effectively in academic, social, and personal situations. Integrated grammar study will help students to understand and use basic grammatical concepts and skills in their speech and writing.

### **GLOBAL PERSPECTIVES IN LITERATURE AND COMPOSITION**

Course #: 051011 (Basic) 1 credit  
051016 (Academic) 1 credit

### **HONORS GLOBAL PERSPECTIVES IN LITERATURE AND COMPOSITION**

Course #: 051018 (Honors) 1 credit

The outcomes of this course are aligned with the Core Learning Goals, Expectations, and Indicators of Learning to be measured on the Maryland State Assessment Program's English 10 and Reading 10 assessments. Students will continue their study of the elements of literature on a global perspective, with a focus on analysis of how authors use literary elements and language to affect reader response. Students also learn biblical and mythological allusions from the context of multicultural and world literature. Grammar and language study will help students to achieve greater variety, flexibility, and linguistic accuracy in their communication. *Prerequisites and other notes: Successful completion of English I.*

### **HONORS BRITISH LITERATURE AND COMPOSITION**

Course #: 054918 (Honors) 1 credit

This is a one-credit course that provides the student with an overview of the author, movements, and themes in the development of British Literature from the Anglo-Saxon period through the Twentieth Century. Learning activities include a variety of response methods to print and non-print media which help students to extend and refine creative, research, and critical analysis strategies. Students explore in depth the devices authors use to reveal literal and metaphorical meaning, and to achieve purpose and effect. Students learn how to use and recognize language which effectively communicates experiences, ideas, and opinions and to appreciate the value of their own and others' personal experiences and the validity of drawing upon them for inspiration and learning. Students learn a variety of rhetorical strategies to use in writing academic essays and work to achieve academic competence in clarity, coherence, unity, organization, diction, and language use. *Prerequisites and other notes: Successful completion of Survey of American Literature and Composition. Prerequisite for students who will enroll in AP Literature and Composition or in AP Language and Composition.*

### **HONORS SURVEY OF AMERICAN LITERATURE AND COMPOSITION**

Course #: 054618 (Honors) 1 credit

The outcomes of this course are aligned with the Core Learning Goals, Expectations, and Indicators of Learning measured by the High School Assessment Program. This is a one credit course that provides the student a broad overview of the themes, authors, and movements in the literary development of the United States, while offering ample analysis and writing opportunities. Students learn to respond to and write on literal and interpretative levels from a variety of initial perspectives that focus on the techniques authors use to manipulate the effect of text. In addition, students will learn a variety of rhetorical strategies for writing academic and research essays, including timed responses. Students will also achieve competence in academic language usage resulting in greater clarity, coherence, and unity in their writing. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

### **MODERN AMERICAN LITERATURE AND COMPOSITION**

Course #: 054111 (Basic) 1 credit  
054116 (Academic) 1 credit

The outcomes of this course are aligned with the Core Learning Goals, Expectations, and Indicators of Learning measured by the High School Assessment Program. Students examine the major themes that are common in 20th century American Literature and that are reflected in contemporary

American art, music, theater, motion pictures, and other media. Through integrated and collaborative activities, students learn to respond to a text, compose in a variety of modes, control language, and evaluate the content, organization, and language use of texts. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

### **MULTICULTURAL LITERATURE AND COMPOSITION**

Course #: 053511 (Basic) 1 credit  
053516 (Academic) 1 credit

The outcomes of this course are aligned with the Core Learning Goals, Expectations, and Indicators of Learning measured by the High School Assessment Program. Multicultural Literature and Composition integrates the art, music, theater, motion pictures, and other media with the various ethnic and cultural groups of contemporary America. In addition to studying the literature and culture of Native, African, Hispanic, Asian, and European-Americans, students will explore the cultural dynamics of gender, religion, social class, and generation. Students will continue to develop reading and writing skills as well as critical and creative thinking skills and strategies. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

### **AP LITERATURE AND COMPOSITION**

Course #: 052819 (AP) 1 credit

AP Literature and Composition is a college-level course designed to engage students in independent and collaborative learning activities that will help them to gain academic proficiency in critical analysis and evaluation, reading, writing, and research. Learning activities focus upon writing timed critical responses to a variety of literary selections and topics. Students work to achieve style in essays that are rhetorically sound and that achieve a high degree of linguistic accuracy. Students explore in depth the devices authors use to reveal literal and metaphorical meaning, and to achieve purpose and effect. Students are encouraged to sit for the College Board's Advanced Placement English Literature and Composition Examination. *Prerequisites and other notes: Students must complete British Literature and Composition prior to or concurrent with enrollment in AP Literature and Composition.*

### **WORLD LITERATURE AND COMPOSITION**

Course #: 055216 (Academic) 1 credit

World Literature and Composition is a survey course that integrates historical, cultural, and linguistic influences on and of world literature. The arrangement of world masterpieces creates a scaffold of concepts, strategies, skills, and activities designed to encourage and broaden students' understanding and appreciation of literature from cultures other than their own. Improved writing, speaking, reading, listening, language, and literature skills are desired outcomes for all students. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

### **CREATIVE WRITING**

Course #: 053606 (Academic) ½ credit

Creative Writing is a one semester course which requires students to improve their writing, speaking, reading, listening, language, and literature skills. Students will learn how to use language which effectively communicates experiences, ideas, and emotions. Students will learn to appreciate the value of their personal experiences and the validity of drawing upon them for inspiration and meaning. Students will learn how language gives meaning and structure to an ever changing world.

### **MYTHOLOGY**

Course #: 056906 (Academic) ½ credit

Students explore the myths from various cultures. Students participate in collaborative learning activities to understand how the myths are reflected in the literature, customs, architecture, and religion of the ancient and modern cultures. Students will continue to develop reading and writing skills, as well as critical and creative thinking skills and strategies. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

### **SHAKESPEARE**

Course #: 056006 (Academic) ½ credit

Shakespeare is a course for those students who want a concentration of the author's works. Students read selections that may include Twelfth Night, King Henry IV, As You Like It, and other dramas. Students study background material on Shakespeare and the development of the theater during the Elizabethan Age. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

### **PUBLIC SPEAKING**

Course #: 057606 (Academic) ½ credit

Public Speaking offers students activities and experiences that help to develop skills in oral communication, critical thinking, accessing information, and writing. Students understand and use the stages of speaking for a variety of purposes, including personal, career, and social. Emphasis is on achieving clarity and confidence when speaking to others.

### **SPEECH AND DEBATE**

Course #: 058006 (Academic) ½ credit

This speech course provides students with opportunities to extend and use research skills and critical thinking strategies for career and academic speaking and writing. Students prepare and deliver oral interpretation of literature as well as a variety of speech types including persuasive, informative, and debate. Students are encouraged to participate in forensic competition. *Prerequisites and other notes: Successful completion of Public Speaking or approval of instructor.*

### **THE BIBLE IN LITERATURE AND ART**

Course #: 055506 (Academic) ½ credit

Students engage in collaborative learning activities to examine themes, characters, and images of the Old Testament and the New Testament that are reflected in literature, art, music, theater, and other media. The focus of the course is on the influence of the Bible on culture. Students continue to develop reading and writing skills, as well as critical and creative thinking skills and strategies. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

## HONORS FILM AND LITERATURE

Course #: 053008 (Honors) ½ credit

This class is an honors level English elective course designed to provide students with an overview of the history of film, the devices and techniques that filmmakers use to create meaning, the process of filmmaking, and the transformation of literature into film. While emphasis will naturally be given to the critical study of film, students will also analyze selected literary works which have made the print-to-cinema transition for a better understanding of literary and cinematic rhetorical strategies and techniques. Assessment activities may include creative writing and critical writing activities, research projects, and the creation of original cinematic works of various lengths and genres.

*Prerequisites and other notes: Successful completion of British Literature and Composition.*

## HONORS TWENTIETH CENTURY NOVEL

Course #: 056308 (Honors) ½ credit

Twentieth Century Novel challenges students through the use of fiction that reflects the changes and events of the century. Students focus on major themes inherent in the 20<sup>th</sup> century such as inner struggle, darkness of the human heart, loss of individuality, and triumph of the human spirit. Students are required to read several novels. *Prerequisites and other notes: Successful completion of Survey of American Literature and Composition.*

## MYSTERY AND DETECTIVE FICTION

Course #:056106 (Academic) ½ credit

Mystery and Detective Fiction will focus on the evolution of the mystery genre from Edgar Allen Poe through Sir Arthur Conan Doyle, Dashiell Hammett, Agatha Christie, and other writers. We'll look at the nature of the mystery genre: what elements constitute detective fiction; how a mystery is set up in terms of pacing, narrative, characterization, props, rhetorical techniques, suspense, setting, etc.; and how mysteries and the detective/sleuths within them reflect the society they live in and thus that society's social mores, ethical framework, and cultural standards. We will also connect the novels and stories we read with other texts covered in other English classes and, more important, with non-fiction and journalistic examples of crime and mystery solving.. Additionally, students will write mysteries using the above elements of mystery and detective fiction. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

## POPULAR CULTURE AND COMPOSITION

Course #:056206 (Academic) ½ credit

In this course, thinking and writing about popular culture provide students with the opportunity to cast a critical eye on the familiar. Students consider how elements of popular culture—drawn from film, television, popular music, and advertising—both shape and are shaped by our society and value systems. Through experiential lessons, critical readings, and class discussions, students acquire sophisticated tools to analyze the meanings, audiences, and social impact of popular culture. Additionally, students learn the rhetorical and compositional techniques needed to successfully write about their interaction and impact with popular culture artifacts. Students will also connect contemporary pop culture studies with novels and reading covered in other English courses as well as concepts and ideas covered in content area courses. In addition, students read and evaluate analyses of contemporary culture and its icons by scholars and journalists. Topics of inquiry range from rap to shopping malls to social cliques and include essays by authors such as J.K. Rowling, Stuart Hall, Naomi Wolf, Molly Bang, P.J. O'Rourke, E.B. White, Jennifer Scanlon, and Roland Barthes. *Prerequisites and other notes: Successful completion of Global Perspectives in Literature and Composition.*

## YEARBOOK PRODUCTION

Course #: 082106 (Academic) ½ credit  
082116 (Academic) 1 credit

Students learn production and publication techniques while actually working on publishing the school's yearbook. Students crop pictures, design layouts, construct photographic essays, write text, and proofread. *Prerequisites and other notes: Yearbook Production receives elective credit only. Ten (10) service-learning hours for ½ credit course and 20 service-learning hours for 1 credit course may be earned.*

## INDEPENDENT STUDY - ENGLISH

Course #: 058108 (Honors) ½ credit

Independent Study allows students to work independently in any area relevant to English. Major emphasis is on research. Work is done during the student's unassigned time and under the direction of a faculty advisor. Regularly scheduled conferences occur at least once a week. Students register only on the recommendation of their teacher, guidance counselor, and principal. *Prerequisites and other notes: Permission of the instructor and approval of the principal are required.*

## WRITING ASSISTANT

Course #: 082606 (Academic) ½ credit

This course is designed for students interested in learning how to assist other students in improving their content knowledge and/or skills in writing. Specifically, the aide helps the teacher in the preparation and/or distribution of instructional materials, tutoring and helping individual students, and providing other assistance to the teacher as needed. Instructional Aides are required to attend training. Their supervision is the responsibility of the assigned teacher. *Prerequisites and other notes: This course is for elective credit only and cannot be used as one of the required courses for graduation. Ten (10) service-learning hours may be earned*

## FAMILY AND CONSUMER SCIENCES

### HONORS CHILD AND ADOLESCENT DEVELOPMENT

Course #:401818 (Honors) 1 credit

This course focuses on human development from birth through adolescence. Emphasis is placed on theories of physical, cognitive and psychosocial development, the effect of heredity and the environment, the role of caregivers and the family, health and safety concerns, and contemporary issues. Students explore special challenges to growth and development. Students will have opportunities for guided observation of children from birth through adolescence in a variety of settings to help students further understand theories of human development. Students will work on the process of developing components of a working professional portfolio. *Prerequisites and other notes: This course is the first in a series of courses in two articulated complete programs, Education – Middle and High School and Early Childhood Education. It is a prerequisite to any other courses in these programs and additional child development courses. It is open to students in grades 10-12.*

## **CHILD DEVELOPMENT LABORATORY**

Course #: 402217 (Articulated) 1 credit

In this course, students will study children ages three to five, with the primary emphasis being placed on actual experience and observation of three and four year-old children in the preschool laboratory. Classroom and individualized study will increase knowledge of the development of children. Students will study childcare services, safety and health in the preschool, child guidance and discipline, operation of preschool, and the exceptional children. *Prerequisites and other notes: Open to students in grades 10-12 who have completed Child and Adolescent Development. 30 hours of student Service-Learning credit may be earned. This course is part of a completer program.*

## **ADVANCED LABORATORY-CHILD DEVELOPMENT**

Course #: 402317 (Articulated) 1 credit

This course is for students who show a special interest in child development. Advanced work is offered in areas such as childhood personality theories and behavior patterns. Emphasis is placed on expanding the students' knowledge of careers in child development. Topics of study include preschool operation, nurturing the components of intelligence, and school readiness. The laboratory preschool will provide students with an opportunity to develop and integrate preschool learning experiences. This program is recommended for students interested in early childhood and elementary education. *Prerequisites and other notes: Child Development Laboratory. 30 hours of student Service-Learning credit may be earned. This course is part of a completer program.*

## **INTRODUCTION TO FOODS**

Course #: 402506 (Academic) ½ credit

This course is designed to help students analyze how knowledge and skills related to nutrition and food affect the well-being of individuals, family and society. Key concepts include food selection, composition and nutrition; meal planning, food preparation, safety and sanitation, current and emerging technology; resource management and career exploration. Students will make decisions and solve problems related to food choices through critical and creative thinking and apply techniques of successful food preparation. *Prerequisites and other notes: A lab fee may be charged for this course.*

## **ADVANCED FOODS**

Course #:403306 (Academic) ½ credit

Advanced Foods is a course that focuses on managing meals, using consumer information and resources, and developing an in-depth knowledge of food selection and preparation. Its sociocultural perspective examines both United States regional foods and the intercultural cuisines of the world. *Prerequisites and other notes:-Introduction to Foods. A lab fee may be charged for this course.*

## **FOOD AND NUTRITION SCIENCE**

*Course is only offered ODD YEARS.*

Course #:402606 (Academic) ½ credit

Food and Nutrition Science is the integration of scientific theory and practice with food product development and current nutrition research. Through classroom and laboratory experiences, students will be provided with an overview of the function of food components, dietary analysis, and nutrition therapy. Careers in related areas will be explored and the safety and sanitation practices for the food industry will be emphasized. *Prerequisites and other notes: Introduction To Foods.*

## **FOOD SERVICE AND HOSPITALITY MANAGEMENT (PROSTART)**

### **FOOD SERVICE PROFESSIONAL I**

Course #:402817 (Articulated) 1 credit

This course provides an introduction to the food service and hospitality industry. Students develop and demonstrate skills in safe and sanitary food handling and preparation techniques. Students learn to prepare a variety of foods and develop a broad understanding of the variety of career options available in this industry. *Prerequisites and other notes: Introduction to Foods is a prerequisite. This is the first course of a four credit career and technology education completer program. Students will have the opportunity to earn the ServSafe credential and begin to accrue hours to meet a 400 hour work-based learning experience requirement through ProStart. All students enrolled in this course must take the National Restaurant Association Educational Foundation (NRAEF) Level I end-of-course exam.*

### **FOOD SERVICE PROFESSIONAL II**

Course #:402917 (Articulated) 1 credit

This course provides instruction on creating menus and demonstrating various types of restaurant service as students continue to prepare a variety of foods. Students will apply purchasing techniques and demonstrate an understanding of inventory monitoring and control. *Prerequisites and other notes: Becoming a Food Service Professional I is a prerequisite. This is the second course of a four credit career and technology education completer program. Students will have the opportunity to continue to accrue hours in work-based learning. All students enrolled in this course must take the National Restaurant Association Educational Foundation (NRAEF) Level II end-of-course exam.*

## **CLOTHING**

Course #: 403917 (Articulated) 1 credit

Clothing is a project-oriented class. Projects are chosen according to student interest and skill. Areas of study include selection, construction, repair, and care of clothing. Pattern and fabric selection, sewing machine and serger usage, and basic construction techniques will be included. *Prerequisites and other notes: Project costs are incurred by the student. Students provide patterns, fabric and notions. Clothing may be repeated for up to 2 credits. This course is part of a completer program.*

## **NEEDLECRAFT**

*Course is only offered EVEN YEARS.*

Course #: 405206 (Academic) ½ credit

Basic techniques for making and finishing many handcrafts such as needlepoint, crewel, counted cross-stitch, Huck, open and closed work, embroidery, modern stitchery, quilting, appliqué, patchwork, smocking, rug making, knitting, crocheting or other needlecraft of interest will be taught. Basic supplies for developing each technique will be furnished; however, project expense will be the responsibility of each student. This course is available to students in grades 9-12. *Prerequisites and other notes: This course is part of a completer program.*

**HOUSING AND HOME FURNISHINGS** Course is only offered ODD YEARS.  
Course #: 400806 (Academic) ½ credit

This course examines historic and current trends in housing and their social implications. Students practice resource management to simulate obtaining and maintaining a living environment to meet family needs and values. Principles of design are applied to create aesthetic and functional areas of a home. *Prerequisites and other notes: This course is part of a completer program.*

**FLOWER DESIGN** Course is only offered EVEN YEARS.  
Course #: 405607 (Articulated) ½ credit

Students demonstrate and practice the elements and principles of design as they create a variety of projects using live materials as well as fabric, dried, and pressed flowers. Only basic supplies for learning each technique will be supplied; project costs will be the responsibility of the student. *Prerequisites and other notes: Flower Design may be repeated for up to 2 credits. This is part of a completer program. A lab fee may be charged for this course.*

**FINANCIAL LITERACY**  
Course #: 406106 (Academic) ½ credit

Financial Literacy is a course based on national standards in economics and personal finance that is designed as part of the transition from high school into the adult world and independent living. Through the use of the decision-making process, active learning, and reflection, students will gain knowledge and skills in the areas of income, money management, consumer rights and responsibilities, spending, credit, saving, and investing. *Prerequisites and other notes: This course meets the graduation requirement in Financial Literacy for students entering 9<sup>th</sup> grade in 2007 and beyond. Recommended for 11<sup>th</sup> and 12<sup>th</sup> grade students.*

**LIVING ON YOUR OWN**  
Course #: 406001 (Basic) ½ credit

Living on Your Own is designed to help students learn to manage the transition from living with parents to living independently. Decision-making and consumer issues are the underlying themes. Topics will include choosing a place to live, transportation, paying the bills, and getting the most for food and clothing dollars. *Prerequisites and other notes: This course is open to 11<sup>th</sup> and 12<sup>th</sup> grade students.*

**LIVING WITH BIOTECHNOLOGY** Course is only offered ODD YEARS.  
Course #: 403006 (Academic) ½ credit

This course is designed to introduce students to the world of biotechnology as technological system and to examine the issues which the average individual and family member will confront as a result of this rapidly changing field. Emphasis will be placed on exploring bioengineering, food processing, biomedical engineering and bioengineering environmental conditions.

**PERSONAL RELATIONSHIPS / EFFECTIVE PARENTING**  
Course #: 400316 (Academic) 1 credit

This elective course provides opportunities for students to gain knowledge, skills and attitudes needed for healthful relationships with other people within the family setting and in the total society. Special attention will be given to family dynamics and communication. *Prerequisites and other notes: This course is open to 11th and 12th grade students.*

**INDEPENDENT STUDY - FAMILY AND CONSUMER SCIENCES**  
Course #: 406806 (Academic) ½ credit

This course is designed for the student who has satisfactorily completed all the courses offered in a specific area of study and who wishes to work independently to acquire further knowledge and skills. The student will be responsible for establishing and executing a project contract with the direction of the advising teacher. This contract will specify required work and detailed project plans. *Prerequisites and other notes: Permission of the instructor and approval of the principal are required.*

## FINE ARTS

### ART ART I

Course #: 600016 (Academic) 1 credit

Art I is open to all high school students interested in taking art for the first time. Art I is the first course in a sequence of art offerings. This course introduces the students to studio art, art criticism, aesthetics, and arts historical and social context. A review of the art elements and principles of design are the starting point of this course. Studio Experiences will be addressed through four major units of study: Introduction; Elements and Principles; Creative Expression; and Visual Culture. Students may be required to purchase notebooks, sketchbooks, or other supplies necessary for this course. *Prerequisites and other notes: This course is a prerequisite to Art II: Two and Three Dimension Art. The credit for this course may be applied to the Fine Arts Graduation requirement.*

**ART II: TWO AND THREE DIMENSION ART**  
Course #: 600616 (Academic) 1 credit

Two and Three Dimension Art is designed to extend the concepts introduced in Art I through additional studio experiences. This course stresses the development of artistic skills and knowledge, and the application to a student's own art work and self-expression. This course has been designed to link artists and exemplars of Art I with newly presented artists, art works, and the cultures that produced them for in-depth study. Emphasis is placed on drawing, printmaking, painting, design, and three-dimensional art. Students will be encouraged to use critical and aesthetic thinking skills in designing works of art and developing personal criteria for assessing them. Review of the Elements of Art and Principles of Design will enhance the production of expressive student art work. Teachers will assign drawing activities throughout the course for homework. Students may be required to purchase notebooks, sketchbooks or other supplies for this course. *Prerequisites and other notes: Successful completion of one credit of Art I (or permission of the instructor) is a prerequisite. This course is a prerequisite to all other advanced art elective courses. The credit for this course may be applied to the Fine Arts Graduation requirement.*

## **APPLIED ART**

Course #: 603606 (Academic) ½ credit

Applied Art class is responsible for filling many of the art-related needs of the school and school organizations. Students will work individually or in groups to produce artwork such as displays, signs, banners, and posters for various clubs, classes, teams and other groups associated with the school. Emphasis will be placed on creating quality work and completing assignments by deadlines. Where necessary, cost of materials will be billed to sponsoring organizations. *Prerequisites and other notes: Successful completion Art II: Two and Three Dimension Art or recommendation of the art instructor is a prerequisite. Ten (10) service-learning hours may be earned.*

## **INDEPENDENT STUDY - ART**

Course #: 604206 (Academic) ½ credit  
604216R (Academic) 1 credit

Students with exceptional skills in art may select to study in an area of advanced work. This may include activities in studio, ceramics, commercial art, jewelry design, art history or any other mutually agreed upon area. *Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art. At least one advanced art elective as a prerequisite is required for Honors Level. Permission of Instructor and approval of the principal are required.*

## **HONORS CERAMICS**

Course #: 603008 (Honors) ½ credit

Ceramics is designed for the student who would like to further his/her interest in the various aspects of pottery construction and design. The course will include hand-building techniques, kiln firing procedures, instruction on the potter's wheel, mold-making, clay preparation, and art appreciation. The course is intended to give the interested student an in-depth study of the potter's art. Successful completion of this course will develop the student's foundation portfolio in preparation for Advanced Placement Studio Art. Students may be required to purchase materials for individual creations. *Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite. This is an advanced art elective.*

## **HONORS COMMERCIAL ART**

*Course is only offered EVEN YEARS.*

Course #: 601218 (Honors) 1 credit

Commercial Art is an upper level art course which focuses on the application of art in commercial fields and introduces career opportunities for the commercial artist. Students learn the basic concepts of layout and visual communication. They learn lettering and illustration skills to create well-designed visual products. The role of technology and electronic imagery is integrated within the curriculum. Successful completion of this course will develop the student's foundation portfolio in preparation for Advanced Placement Studio Art. *Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite. This is an advanced art elective This course is part of a completer program, which articulates with Carroll Community College and the Art Institute of Washington.*

## **HONORS DRAWING**

Course #: 610008 (Honors) ½ credit

Drawing I is specifically designed for the advanced art student. It explores the elements of lines on a college level. Students will study concepts involving positive and negative approaches toward line, rendering, photo-realism, progressive composition, and the effects of light and shadow on form. Portrait studies, landscapes, still life and object rendering will be examined at great length. A variety of drawing tools will be explored such as pastels, charcoal, pen and ink, colored pencils, crayons, and drawing pencils. This course will benefit those who wish to develop their skills in drawing that are necessary for success in the studio or workplace. Students will have the opportunity to build a portfolio of two-dimensional artwork (useful to college or art school admission). Successful completion of this course will develop the student's foundation portfolio in preparation for Advanced Placement Studio Art. *Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite. This is an advanced art elective.*

## **HONORS MIXED MEDIA**

Course #: 602408 (Honors) ½ credit

Mixed Media is intended for students who wish to extend experiences in three-dimensional art processes such as sculpture using a variety of media. Students will create individual projects (using) clay, wood, metal or other appropriate materials. Sculptural skills learned in Ceramics and in Two and Three Dimensional Art will be employed in the production of artwork. Students may be required to purchase materials for use in this course. Successful completion of this course will develop the student's foundation portfolio in preparation for Advanced Placement Studio Art. *Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite. This is an advanced art elective.*

## **HONORS PAINTING**

Course #: 611008 (Honors) ½ credit

Painting I is designed for advanced art students wishing to refine their painting skills. A wide variety of techniques for using watercolor, tempera, and acrylics will be explored. Application of paint, composition, and color theory will be discussed. This course will allow students to build a portfolio of painted work. Successful completion of this course will develop the student's foundation portfolio in preparation for Advanced Placement Studio Art. *Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite. This is an advanced art elective.*

## **HONORS STUDIO ART**

*Course is only offered ODD YEARS.*

Course #: 601818 (Honors) 1 credit

Studio Art emphasizes personal development in the fine arts. Students will continue experiences in drawing, painting, sculpture, printmaking and processes. Concepts of critical and aesthetic thinking skills learned in previous art courses will be applied to exemplar works and to students' own art works. Students will be encouraged to use these skills in assessment of their own works. Studio Art is intended for students who exhibit a strong interest in art and wish to extend their skills and knowledge. Drawing activities will be assigned as homework throughout the course. Students may be required to purchase notebooks, sketchbooks or other supplies for the course. Successful completion of this course will develop the student's

foundation portfolio in preparation for Advanced Placement Studio Art. *Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite. This is an advanced art elective.*

## **AP STUDIO ART**

Course #: 601719 (AP) 1 credit

AP Studio Art develops the personal commitment to visual expression through rigorous problem-solving and demonstration of material and concept mastery. This course provides students with the means to construct a college-level visual art portfolio in accordance with MSDE learner outcomes and advanced placement Studio Art standards. Focus will include drawing, 2-D design, and 3-D design. Students are encouraged to sit for the College Board's Advanced Placement Studio Art examination. Students should expect some financial responsibility for advanced art materials. *Prerequisites and other notes: One of the following prerequisites is required: Honors Ceramics, Honors Mixed Media, Honors Commercial Art, Honors Studio Art, Honors Drawing or Honors Painting.*

## **DRAMA**

### **DRAMA I**

Course #: 060506 (Academic) ½ credit

Drama I is an introduction to theatre. In this course the students will study early history of theatre, theatre terminology, and basic performance skills. The students will participate in theatre games, mime and pantomime, improvisation, and scene study. The memorization of a short scene and the review of a live stage performance will be required in this course. *Prerequisites and other notes: Drama I fulfills ½ credit of the Fine Arts requirement for graduation.*

### **DRAMA II**

Course #: 061006 (Academic) ½ credit

Drama II is a continuation of the study of theatre. In this course the students will examine character development through scene study and monologues, auditioning techniques, and video production. Drama II will also focus on several aspects of technical theatre such as makeup and publicity. The memorization of short scenes and monologues, and the review of a live stage performance will be required in this course. *Prerequisites and other notes: Drama I is a prerequisite. Drama II fulfills ½ credit of the Fine Arts requirement for graduation.*

### **DRAMA III**

Course #: 062006 (Academic) ½ credit

Drama III is a continuation of the study of theatre. In this course the students will further examine character development through scene study using modern and classical works. Students will participate in auditioning for a musical, directing, play writing, children's theatre, and video production. The memorization of short scenes and monologues, and the review of a live stage performance will be required in this course. *Prerequisites and other notes: Drama II is a prerequisite. This course may be repeated for elective credit.*

### **INDEPENDENT STUDY - DRAMA**

Course #: 063006 (Academic) ½ credit

Students with exceptional interest in Drama may select to study in an area of advanced work. This may include activities such as: set design and set building, costuming, business (publicity and box office), scene study, playwriting, directing, video production. This may be completed in individual or group setting. *Prerequisites and other notes: Drama III is a prerequisite. This course may be repeated for elective credit. Permission of the Instructor is required prior to selecting Independent Study-Drama.*

## **MUSIC**

In all music performance classes students use compositions of noted composers, to explore units of study that focus on critical analysis, aesthetic thinking, musical form and style, artistic expression of various cultures, and the social and intellectual influence affecting music as an art. Students must be enrolled in band front or an instrumental performance ensemble to be eligible to participate in marching band. Students should expect some financial responsibility for proper performance attire and proper care of the instruments they use.

### **BAND I CONCERT BAND**

Course #: 650016 (Academic) 1 credit

### **HONORS SYMPHONIC BAND**

Course #: 652018 (Honors) 1 credit

### **HONORS WIND ENSEMBLE**

Course #: 650418 (Honors) 1 credit

Three levels of band are offered, Band I, Symphonic Band, and Wind Ensemble. Wind Ensemble utilizes materials more technically demanding than those for Band I and Symphonic Band. Wind Ensemble is designed for the student of advanced ability level. All Band Classes focus on the study of traditional band literature as well as transcriptions of great orchestral literature. Students will advance in technical skill, stylistic understanding of historical background, and aesthetic awareness through the study and performance of quality music literature. The instrumental music teacher will place students in the organization which, in his/her best judgment, will provide the most beneficial educational experience for the individual. Performances at school and community events are an integral part of the program. Participation in the public performances is a required component of this course. Instruction in the honors level performing organizations will include foundations in music theory to prepare students for participation in Advanced Placement Music Theory. *Prerequisites and other notes: Band may be repeated for credit. Participation in this class is required for students to be eligible should they choose to participate in Marching Band, All-County and All-State organizations. The credit for these courses may be applied to the Fine Arts Graduation requirement.*

### **BAND FRONT**

Course #: 650806 (Academic) ½ credit

Band Front is a multi-leveled course designed to engage students in independent and collaborative learning activities that will help them visually interpret and enhance the musical performance of the marching band. Students gain technical and stylistic proficiency in individual skills and ensemble skills through performance of routine. Students explore the basic elements of music as well as historical and cultural context to extend

knowledge for musical interpretation. Successful completion of the course should provide technical skills and knowledge of music to enable students to create performances which are precise, accurate, and exciting. Students are encouraged to repeat the course to continue their technical and creative growth. *Prerequisites and other notes: Permission of the instructor is required prior to selecting this activity. Band Front will not be used to help satisfy Fine Arts requirement. It may be repeated for credit.*

### **ENSEMBLE PARTICIPATION - GUITAR**

Course #: 652406 (Academic) ½ credit

Ensemble Participation provides opportunities for appropriate combinations of instruments to meet on a regular basis and study by performing some of the great music composed for small ensembles (string quartets, woodwind quintet, brass quintet, percussion ensemble, etc.).

### **HONORS JAZZ ENSEMBLE**

Course #: 651718 (Honors) 1 credit

This activity provides the opportunity for the study of dance band, jazz, and popular music. The stylistic elements of performance as well as some of the important artists and music of the jazz and popular field will be studied. The Jazz Ensemble is made up of qualified students selected on the basis of performing skill and required instrumentation. Instruction in the honors level performing organizations will include foundations in music theory to prepare students for participation in Advanced Placement Music Theory. *Prerequisites and other notes: Permission of the band director is required prior to selecting this activity. Jazz Ensemble may be repeated for credit.*

### **ORCHESTRA**

Course #: 652416 (Academic) 1 credit

### **HONORS ORCHESTRA**

Course #: 652418 (Honors) 1 credit

Orchestral activities focus on the study of music through orchestral performance. All qualified orchestral string instrumentalists are assigned to this group. Wind and percussion players are selected on the basis of qualifying auditions by the instrumental music teacher. Honors Orchestra is for students who have successfully completed one year of high school orchestra and is an honors level performing course. Instruction in the honors level performing organizations will include foundations in music theory to prepare students for participation in Advanced Placement Music Theory. *Prerequisites and other notes: Orchestra may be repeated for credit. Participation in this class is required for students to be eligible should they chose to participate in All-County and All-State organizations. The credit for these courses may be applied to the Fine Arts Graduation requirement.*

### **CHORUS**

Course #: 654806 (Academic) ½ credit  
654816 (Academic) 1 credit

### **HONORS CHORUS**

Course #: 655608 (Honors) ½ credit  
655618 (Honors) 1 credit

### **HONORS FESTIVAL CHORUS**

Course #: 655718 (Honors) 1 credit

Three levels of chorus are offered, Chorus, Honors Chorus, and Honors Festival Chorus. Honors Festival Chorus utilizes materials more technically demanding than those for Chorus and Honors Chorus. Honors Festival Chorus is designed for the student of advanced vocal ability level. All chorus classes focus on the study of traditional choral literature. Students will advance in technical skill, stylistic understanding of historical background, and aesthetic awareness through the study and performance of quality music literature. The chorus music teacher will place students in the organization, which, in his/her best judgment, will provide the most beneficial educational experience for the individual. Performances at school and community events are an integral part of the program. Participation in the public performances is a required component of this course. Instruction in the honors level performing organizations will include foundations in music theory to prepare students for participation in Advanced Placement Music Theory. *Prerequisites and other notes: Successful completion of Chorus or teacher recommendation is a prerequisite for honors level chorus classes. Honors level chorus classes may be repeated for credit. The credit for these courses may be applied to the Fine Arts Graduation requirement.*

### **HONORS VOCAL ENSEMBLE**

Course #: 656028 (Honors) 2 credits

Vocal Ensemble provides an opportunity to be organized into ensembles on a regular basis and explore some of the significant vocal ensemble music. This course may include Madrigal group, women's and men's ensembles, and other ensembles appropriate to the needs and abilities of the students. Instruction in the honors level performing organizations will include foundations in music theory to prepare students for participation in Advanced Placement Music Theory. *Prerequisites and other notes: Vocal Ensemble is by audition only. This course may be repeated for credit.*

### **EXPLORING MUSIC** Course is only offered EVEN YEARS.

Course #: 656916 (Academic) 1 credit

Students will examine the important role of music in our lives. This foundation course will include units on basic music theory, American popular music, musical theater, world music, and an overview of classic style periods. By the end of the course, students will have explored music careers that are involved in performing, teaching, and recording related areas. The use of piano, guitar, etc., as well as the computer will be incorporated as availability of equipment permits. *Prerequisites and other notes: Exploring Music will meet the Fine Arts requirement.*

### **MUSIC HISTORY AND LITERATURE** Course is only offered ODD YEARS.

Course #: 653206 (Academic) ½ credit

This is an introductory course for students who wish to study music from ancient times to the present. This course encompasses all periods, styles, and cultures. Technical knowledge of music is not necessary to enroll.

### **ELECTRONIC MUSIC** Course is only offered ODD YEARS.

Course #: 650906 (Academic) ½ credit

Students will learn how to use the computer, music synthesizer, and music software to listen, perform, and compose music. They will experience

increases in computer knowledge, musical notation and composition and digital sequencing. Students will have the opportunity to create multimedia presentations using music, images, and video. This course may be taken in sequence with music theory.

### **INDEPENDENT STUDY - MUSIC**

Course #: 656806 (Academic) ½ credit

Where facilities and equipment permit, provision for independent study is recommended. Individualized listening centers and sound isolated practice areas are necessary. Independent study may be scheduled for vocal music students, instrumental music students, music theory, music literature, piano, conducting, etc. Students may also serve as teaching assistants in various capacities. *Prerequisites and other notes: Permission of the instructor and approval of the principal are required.*

### **HONORS MUSIC THEORY**

Course #: 653608 (Honors) ½ credit

Students gain academic proficiency in reading and writing music notation, scales and intervals, basic harmony, basic melody, and form. Successful completion of the course will provide an understanding of melody, harmony, rhythm, and form, thereby equipping the students to better understand existing music and to compose music using the principles of music theory as a guide. Training on notation software will be included when available. By the end of the course the student will compose a short original composition utilizing four-part chorale texture, and score it for a mixed quartet of instruments. This course will provide the students foundations in music theory in preparation for Advanced Placement Music Theory. *Prerequisites and other notes: Students must have completed one credit in Exploring Music.*

### **AP MUSIC THEORY**

Course #: 653519 (AP) 1 credit

AP Music Theory is an advanced level course designed to engage students in learning activities that will help them to achieve the outcomes measured by the College Board's Advanced Placement Music Theory Examination. The design of the AP Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. These abilities will be developed through knowledge in aural skills, sight singing skills, written skills, compositional skills, and analytical skills. Students are encouraged to sit for the College Board's Advanced Placement Music Theory examination. *Prerequisites and other notes: Students must successfully complete an Honors level performance course or Honors level Music Theory.*

## **GUIDANCE / COUNSELING**

### **CAREER RELATED WORK EXPERIENCE**

Course #: 801206 (Academic) ½ credit  
801216 (Academic) 1 credit  
801226 (Academic) 2 credits

This course provides twelfth grade students with the opportunity to obtain actual work experience. Students must meet specified prerequisites and complete the application and interview procedures prior to selection of this course. Students will complete a training plan geared to their career goals and will be placed in a local business for a nine or eighteen week period in a paid or unpaid experience. Students, who require some pre-training for certain job sites, may obtain these specific skills by attending the Carroll County Career and Technology Center for a short period of time. Students will also participate in a Total Quality Management training seminar on a regular basis. *Prerequisites and other notes: 2.5 overall GPA, 94% attendance (previous semester), and provide own transportation to work-site. This course is part of a completer program.*

### **CONCURRENT ENROLLMENT**

Course #: 800606 (Academic) ½ credit

This course provides students who meet prerequisites the opportunity to attend college courses during the school day. All courses resulting in college credit will yield elective high school credit on a pass/fail basis and are considered non-leveled. Three college credits are equivalent to ½ high school elective credit. All high school credits will be awarded after the student's completion of the course and upon receipt of the student's official grades. Students must meet specific requirements and complete an application and orientation process before being accepted for enrollment. Students seeking concurrent enrollment must have a parent conference for post secondary planning with their counselor. *Prerequisites and other notes: The student must complete all Student Service requirements, and maintain 94% attendance during the 9 weeks preceding the application. In addition, the student must have completed or be enrolled at the home school in courses meeting graduation requirements, including those courses designed to satisfy the requirement of earning 4 credits beyond grade 11. Concurrent enrollment is subject to approval by the principal.*

### **FRESHMAN SEMINAR**

Course #: 801106 (Academic) ½ credit  
801108 (Honors) ½ credit

This course is designed to assist ninth grade students in making a smooth transition to high school. Emphasis will be placed on study skills, goal setting, career developments, decision-making, and conflict resolution. Activities and lessons are designed to orient students to student services such as: the media center, guidance services, career center, writing center, and the learning center. During the course, students will develop their four-year course of studies plan and begin to develop a comprehensive portfolio. *Prerequisites and other notes: Successful completion of Freshman Seminar is recommended for entrance into the Academy of Finance.*

### **HIGH SCHOOL ASSESSMENT SUPPORT**

Course #: 801401 (Basic) ½ credit  
801411 (Basic) 1 credit

This course is designed for students who have not passed any of the Maryland High School Assessments (English, Algebra /Data Analysis, Government, Biology). Students are provided with an individualized program of learning that focuses on specific content, skills, and strategies needed for success on the High School Assessments. *Prerequisites and other notes: Students are placed in this course by the school administration. This course carries elective credit only, and it may be repeated for elective credit.*

## **INDEPENDENT STUDY - STUDENT SERVICE**

Course #: 802006 (Academic) ½ credit

This course is designed for 11th and 12th grade students who are involved in approved service activities in the school/community. Students must present a proposal to their principal for prior approval which includes the three critical components of service-learning: preparation, action, and reflection.

## **PEER FACILITATING**

Course #: 800006 (Academic) ½ credit

This course is designed for students who are interested in developing leadership skills which will permit them to recognize and intervene in problems identified in their school. Students selected must evidence satisfactory academic achievement, as well as emotional maturity and leadership potential. Students must exemplify, model, and maintain appropriate behavior. Students will work under the direct supervision of a school counselor. Grading will be on a pass/fail basis. Students must apply and be selected as peer facilitators. *Prerequisites and other notes: Students must complete a summer peer facilitating training program and at least one mid-year training during the school year. Ten (10) service-learning hours may be earned.*

## **SAT PREPARATION**

Course #: 801006 (Academic) ½ credit (12<sup>th</sup> grade only)

801016 (Academic) 1 credit (11<sup>th</sup> grade only)

This course is designed primarily for 11th and 12<sup>th</sup> grade students who will be taking the SAT®. Instruction will be in Mathematics and English and supplemented by instruction on test-taking skills, use of time, analysis of questions, and study skills. English instruction will deal with vocabulary, grammar, reading, comprehension, and antonyms. Mathematics instruction will consist of a review of the skills taught in Arithmetic, Algebra I and II, and Geometry. *Prerequisites and other notes: Mathematics - Be enrolled in or have completed Intermediate Algebra/Data Analysis; (For students entering 9<sup>th</sup> grade in the fall of 2009 and thereafter - Be enrolled in or have completed Algebra II/Data Analysis, English - English I, Global Perspectives in Literature and Composition, be enrolled in or have completed Survey of American Literature and Composition.*

# **HEALTH**

## **HEALTH I**

Course #: 300006 (Academic) ½ credit

This course encourages students to develop skills, attitudes, and behaviors that will enable them to make the responsible decisions that promote healthful behaviors. The development of a healthy lifestyle is imperative to maximize an individual's potential for optimal well-being. Issues that will be included are: body systems, prevention and control of communicable diseases, personal hygiene, self-concept, alcohol and other drugs, nutrition, health consumerism, suicide, interpersonal relationships, peer pressure, CPR, First Aid, and Family Life and Human Sexuality. Parents who desire their child to be excused from the Family Life and Human Sexuality unit may do so. These students will not be penalized by this request and will be responsible for other health related assignments. *Prerequisites and other notes: This course is required for graduation and is designed for coeducation classes. This course is part of a completer program.*

*NOTE TO PARENTS:* A letter will be sent from the school explaining the Family Life and Human Sexuality component of the Health I program. A portion of the letter will have a permission slip which must be returned to school for the child to participate. If you do not return the permission slip, your child will be provided an alternative program of studies. The alternative program of studies will include units in Environmental Health, Disease Age Specific, First Aid Topics, and Family Issues. The Health Educator in the child's school will provide additional information about alternative programs.

## **HEALTH II**

Course #: 302006 (Academic) ½ credit

This elective course provides an additional opportunity for students to pursue their interests in health. Instruction will be offered in CPR, Blood Pressure, and First Aid. Safety and emergency management will be included. Personal and family health care and related issues including promoting wellness and health consumerism will be explored. Throughout this course, attention will be given to health-related career opportunities. *Prerequisites and other notes: Successful completion of Health I. This course is part of a completer program.*

# **MATHEMATICS**

## **ALGEBRA I / DATA ANALYSIS**

Course #: 201816 (Academic) 1 credit

This course (or the extended time 2 credit alternative – see below) is required of all students seeking a diploma. In Algebra I/Data Analysis, the student will learn to solve linear equations and inequalities showing the solution set graphically; to solve verbal problems algebraically; to recognize and apply the properties of the real number system and to solve systems of linear equations. Skills in working with graphing calculators, polynomials, finding products, as well as applications are stressed. Probability and data analysis will be emphasized. Factoring will be included if time permits. This course prepares students for the High School Assessment-Algebra and Data Analysis.

## **ALGEBRA I / DATA ANALYSIS - Part A**

Course #: 201716 (Academic) 1 credit

This is the first half of a two-credit extended time Algebra I/Data Analysis sequence. This course provides more time for students to be successful with this important course content. This course together with Algebra I/Data Analysis Part B prepares students for the High School Assessment - Algebra and Data Analysis.

## **ALGEBRA I / DATA ANALYSIS –Part B**

Course #: 202016 (Academic) 1 credit

This course is the second half of a two-part course that enables students to complete a two-credit Algebra I/Data Analysis program. This course together with Algebra I/Data Analysis Part A prepares students for the High School Assessment - Algebra and Data Analysis and successful

completion fulfills the Maryland State algebraic topics mathematics graduation requirement. *Prerequisites and other notes: Algebra I/Data Analysis - Part A.*

### **INTERMEDIATE ALGEBRA /DATA ANALYSIS**

Course #: 202216 (Academic) 1 credit

### **HONORS INTERMEDIATE ALGEBRA /DATA ANALYSIS**

Course #: 202218 (Honors) 1 credit

This course is designed for the student who plans to continue her/his education beyond high school. The topics include factoring, functions, quadratic equations systems, of equations/inequalities, complex numbers, and rational expressions/equations. The solution of related problems using the graphing calculator will be included. (Honors Algebra Intermediate/Data Analysis will also include matrices.) *Prerequisites and other notes: Algebra I/Data Analysis. [Note: Beginning with students entering 9<sup>th</sup> grade in Fall of 2009, this course will not satisfy the Maryland university system graduation requirements.]*

### **GEOMETRY**

Course #: 203916 (Academic) 1 credit

### **HONORS GEOMETRY**

Course #: 203918 (Honors) 1 credit

This course provides for the development of a mathematical system through the use of deductive reasoning, logic, constructions, and proofs. Topics include deductive and inductive reasoning, triangles, quadrilaterals, other polygons; similarity, congruency, circles, space geometry, and trigonometry. *Prerequisites and other notes: Algebra I/Data Analysis*

### **APPLIED GEOMETRY**

Course #: 204316 (Academic) 1 credit

This course is an alternative to the academic geometry course and meets the Maryland state geometry graduation requirement. Applications of Geometry in a variety of career settings will be emphasized. *Prerequisites and other notes: Algebra / Data Analysis – Course 1 Part B is a prerequisite. Students earning credit in Applied Geometry can meet Carroll County local graduation requirements by completing a state-approved completer program or by earning a minimum of two additional higher-level math credits (Intermediate Algebra / Data Analysis and Algebra II/ Data Analysis).*

### **ALGEBRA II/ DATA ANALYSIS**

Course #: 202316 (Academic) 1 credit

### **HONORS ALGEBRA II/DATA ANALYSIS**

Course #: 202318 (Honors) 1 credit

This course is designed for students looking to continue their education after high school. The topics studied include polynomials, factoring, complex numbers, quadratic equations, graphs of functions, systems of equations and inequalities, matrices, probability correction and regression, polynomial & rational functions, exponential & logarithmic functions, and analytic geometry.

*Prerequisites and other notes: Intermediate Algebra/Data Analysis and Geometry. [Note: Beginning with students entering 9<sup>th</sup> grade in the Fall of 2009, successful completion of this course is required to satisfy the Maryland university system graduation requirements.]*

### **PROBABILITY AND STATISTICS**

Course #: 205006 (Academic) ½ credit

This course is designed for students desiring to learn how to organize and interpret quantitative data and to understand concepts of probability. Applications in other content areas will be stressed. *Prerequisites and other notes: Intermediate Algebra /Data Analysis.*

### **AP PROBABILITY AND STATISTICS**

Course #: 205019 1 credit

Topics included in this course are broken into four main categories: Exploratory Analysis, Planning a Study, Probability, and Statistical Inference. Students are expected to sit for the AP Statistics Examination. Possible college credit can be earned with a score of 3, 4, or 5 on the examination.

*Prerequisites and other notes: Intermediate Algebra/Data Analysis (Algebra II/Data Analysis highly recommended).*

### **TRIGONOMETRY & PRE-CALCULUS**

Course #: 204516 (Academic) 1 credit

This Course is designed for students looking to continue their education after high school. Topics studied include trigonometry analytic geometry, sequences, series, and an introduction to limits, derivatives & integration. *Prerequisites and other notes: Algebra II/Data Analysis.*

### **HONORS TRIGONOMETRY & PRE-CALCULUS**

Course #: 204518 (Honors) 1 credit

This course is intended for college-bound students who will major in fields that use higher level mathematics. Topics include trigonometry, vectors, polar & parametric equations, math induction, sequences, series, and an introduction to limits, derivatives & integration. *Prerequisites and other notes: Algebra II/Data Analysis (Level 8 highly recommended)*

## HONORS CALCULUS

Course #: 205718 (Honors)

1 credit

In this course students explore the concepts of limits, derivatives, and integrals and prepare for further studies in calculus. Limits are essential since they provide the foundation for both differential and integral calculus. Students will learn the interpretations, techniques, and applications of both derivatives and integrals. *Prerequisites and other notes: Trigonometry & Pre-calculus (Academic) or Pre-calculus (Academic) or Honors Trigonometry and Honors Pre-Calculus.*

## AP CALCULUS AB

Course #: 205319

1 credit

In this course, students study graphs, functions, limits, derivatives, and integrals, and prepare for further studies in calculus. Students will learn the interpretations, techniques, and applications of both derivatives and integrals. Much work will be done with graphing calculators. Students are expected to sit for the College Board's Advanced Placement Calculus AB Examination. *Prerequisites and other notes: Either Honors Trigonometry & Pre-calculus or both Honors Pre-calculus and Honors Trigonometry are highly suggested.- [Students completing Trigonometry & Pre-calculus (Academic) or Pre-calculus (Academic) should obtain a teacher recommendation].*

## AP CALCULUS BC

Course #: 205219

1 credit

Much emphasis is placed on preparing for the AP Calculus BC test. In addition to applying concepts from Calculus, students investigate advanced techniques of integration, polar and parametric equations, and infinite series. Topics such as Taylor, Power, and Maclaurin series will be emphasized. Students are expected to sit for the College Board's Advanced Placement Calculus BC Examination. *Prerequisites and other notes: AP Calculus AB.*

## MATHEMATICS AIDE

Course #: 206006 (Academic)

½ credit

This course is designed for students interested in learning how to assist other students in improving their content knowledge and/or skills in mathematics. Specifically, the aide helps the teacher in the preparation and/or distribution of instructional materials, tutoring and helping individual students, and providing other assistance to the teacher as needed. Instructional Aides are required to attend training. Their supervision is the responsibility of the assigned teacher. *Prerequisites and other notes: This course is for elective credit only and cannot be used as one of the required courses for graduation. -Ten (10) service-learning hours may be earned.*

## INDEPENDENT STUDY - MATHEMATICS

Course #: 206308 (Honors)

½ credit

Independent Study: Mathematics allows students to work independently in an area of study or research which is an extension of a topic previously studied or an area of study or research not covered in the high school course of studies. Work is done during the student's unassigned time under the direction of a faculty advisor. Regularly scheduled conferences will occur. Students register only on the recommendation of their teacher and guidance counselor. *Prerequisites and other notes: Permission of the instructor and approval of the principal are required.*

# MEDIA

## MEDIA CENTER STUDENT ASSISTANT

Course #: 850006 (Academic)

½ credit

This course is designed for students interested in helping other students and teachers use media center resources and research skills. Duties include circulation of materials and equipment; tutorial assistance with reference resources, including electronic databases; record keeping; and processing new materials. *Prerequisites and other notes: This program is available to students with permission of the media specialist and references from two teachers. Ten (10) service-learning hours may be earned.*

## SCRIPT WRITING AND VIDEO PRODUCTION

Course #: 850116 (Academic)

1 credit

This course is designed to foster media/communications literacy and fluency by engaging students in the pre-production, research, production, and post-production cycle of video production. Students will learn the basic elements of digital imaging, sound, and digital video while learning the techniques and style for writing scripts. During the course, students will have an opportunity to demonstrate writing, performing, and producing skills in order to create a video product. This course may partially satisfy requirements in Advanced Technology Education. *Prerequisites and other notes: This course is part of a complete program and may partially satisfy requirements in Advanced Technology Education. A lab fee may be charged for some activities.*

# PHYSICAL EDUCATION

## PHYSICAL EDUCATION I

Course #: 250006 (Academic)

½ credit

Physical Education I is designed to fulfill ½ credit towards the CCPS Physical Education graduation requirement. Emphasis will be placed on concepts of personal fitness and knowledge to achieve and maintain a healthy level of physical fitness. Students will participate in a variety of sport theme activities that can be used for lifetime recreation and personal fitness. The following is a listing of sport theme offerings:

<b>Fitness</b>	<b>Throwing and Catching</b>	<b>Striking</b>	<b>Speed/Timing/Accuracy</b>	
Part of every lesson:	One of the following:	At least two of the following:	At least two of the following:	
Warm-ups	Ultimate Frisbee	Tennis	Archery	Badminton
Plyometrics	Volleyball	Pickleball	Bowling	Ultimate Frisbee
Walking/Jogging	Flag Football	Badminton	Golf	Orienteering
Heart rate fitness	Soccer	Golf	Table Tennis	Horseshoes
	Basketball	Table Tennis	Tennis	Pickleball

*Prerequisites and other notes: Recommended for all grade 9 students.*

## ADAPTED PHYSICAL EDUCATION

Course #: 252406 Fall (Academic) ½ credit  
252506 Spring (Academic) ½ credit

This course is designed to provide individualized and group learning experiences for students with special needs. Students in this class must have an IEP with stated goals and objectives for physical education, a section 504 plan, or special permission. This course may be taken in place of Physical Education I if it provides the least restrictive environment for the special needs of the student. *Prerequisites and other notes: Admittance to the course should be determined by the guidance counselor, physical education staff, and special education staff.*

## INDIVIDUAL/DUAL SPORTS

Course #: 250806 (Academic) ½ credit

Previously learned concepts and skills from Physical Education I provide the foundation for this course. Emphasis will be placed on personal improvement of sport-specific movement patterns, strategies, and rules. Both skill-related and health-related components of physical fitness will be emphasized. Student will develop their skill competencies, participate in Individual/Dual sports, and work towards achievement of personal fitness levels. Students within a class will be performing at varying levels of competency.

The following is a listing of Individual/Dual sports activities:

Archery	Handball	Tennis
Badminton	Pickleball	Bowling
Golf	Table Tennis	Horseshoes

*Prerequisites and other notes: Successful completion of Physical Education I. This course may be repeated for credit.*

## PERSONAL FITNESS

Course #: 257006 (Academic) ½ credit

Students will be educated in the areas of health, fitness, and wellness to give them the self-maintenance skills, physical skills and knowledge base to help them adopt a healthy lifestyle.

Body Toning	Low Impact Aerobics	Tae-bo
Flexibility Exercises	Walking Program	Pilates
High Impact Aerobics	Step Aerobics	Yoga
Jogging Program	Strength Conditioning	

*Prerequisites and other notes: Physical Education I is a prerequisite. This may be repeated for credit.*

## TEAM SPORTS

Course #: 251006 (Academic) ½ credit

Previously learned concepts and skills from Physical Education I provide the foundation for this course. Emphasis will be placed on personal improvement of sport-specific movement patterns, strategies and rules. Both skill-related and health-related components of physical fitness will be emphasized. Students will develop their skill competencies, participate in Team Sports and work towards achievement of personal fitness levels. Students within a class will be performing at varying levels of competency.

The following is a listing of Team Sports activities:

Basketball	Indoor Soccer	Softball
Field Hockey	Lacrosse	Volleyball
Flag Football	Mass Games	Speedball
Floor Hockey	Soccer	Ultimate Frisbee

*Prerequisites and other notes: Successful completion of Physical Education I. This course may be repeated for credit.*

## WEIGHT TRAINING

Course #: 253006 Fall (Academic) ½ credit

This course is designed for the student who wants to improve and maintain a physical fitness level which will allow him/her to produce physically to maximum proficiency. This course will include endurance, strength, agility, and aerobic activities. *Prerequisites and other notes: Physical Education I is a prerequisite. This may be repeated for credit.*

## ADVANCED WEIGHT TRAINING

Course #: 253116 (Academic) 1 credit

This course is designed for students who have successfully completed the prerequisite Weight Training course. It will build upon the concepts and skills of exercise physiology, as well as biomechanical, social psychological, and motor learning principles. It will challenge students to maintain or improve their physical fitness levels. *Prerequisites and other notes: Weight Training.*

## ORGANIZATION AND ADMINISTRATION IN PHYSICAL EDUCATION

Course #: 256606 Fall (Academic) ½ credit

This program is designed for the student who expects to continue his/her education in the area of physical education or for the student who has a special interest in working with students in physical education/recreation. Students will assist the teacher in taking roll, officiating, working on charts for tournaments, and instilling the proper use of facilities and equipment. This course is a supplement to the program and cannot be used as an alternate. The student will dress as a regular physical education student and will receive a letter grade. *Prerequisites and other notes: Students must be juniors or seniors, have completed Physical Education I plus two (2) higher level physical education courses, and have permission from the physical education department.*

## READING

### READING

Course #: 905011 (Basic) 1 credit

This course focuses on basic reading skills, functional reading, vocabulary and comprehension skills. Entrance to this class should be on an assigned basis. *Prerequisites and other notes: Reading may not be used to meet the State graduation requirements in English. This course may be repeated for credit.*

## SCIENCE

### CONCEPTUAL PHYSICS

Course #: 155311 (Basic) 1 credit

155316 (Academic) 1 credit

### HONORS CONCEPTUAL PHYSICS

Course #: 155318 (Honors) 1 credit

Conceptual Physics is an activity-based Physics course in which students are challenged to solve a problem that is identified at the beginning of each chapter. Students solve the chapter's problem using the knowledge learned from the chapter. New content is presented in a variety of learning formats. Students learn from experiments, and by asking a series of questions; e.g. Why are seatbelts important? Why is loud music hazardous? Why is communication with extra terrestrials difficult?

### CHEMISTRY I

Course #: 151611 (Basic) 1 credit

151616 (Academic) 1 credit

### HONORS CHEMISTRY I

Course #: 151618 (Honors) 1 credit

The class will provide students with a specific background in the nature of matter, atomic structure, molecular motion, chemical solutions, chemical bonding, and organic chemistry. Emphasis will be placed upon problem solving and laboratory skills. The mathematical concepts involved in the presentation of these topics will be at an appropriate grade level for the students enrolled in this class. Computer software/interfaces, demonstrations, and hands-on laboratories relate science content to current applications in our everyday life. A variety of activities and experiences will accommodate the unique needs and varied learning styles of all students. Lesson activities will develop organizational skills, analytical reasoning, and problem solving. The topics and outcomes of this course reflect the parameters defined by MSDE Chemistry High School Core Learning Goals. It is expected that all students who are planning to attend post secondary education will enroll in Chemistry II and a course in physics. The sequence of Chemistry II and Physics should be at the recommendation of the science department chair and science staff. *Prerequisite for Chemistry I: Conceptual Physics.*

### BIOLOGY I

Course #: 150611 (Basic) 1 credit

150616 (Academic) 1 credit

### HONORS BIOLOGY I

Course #: 150618 (Honors) 1 credit

These are laboratory-oriented courses in which the basic principles of the living world unfold. The content centers around two major biological theories which are developed in detail. In the first, students learn that all living things are made of cells which are responsible for the functions of an organism; in the second, they learn that all living things change and evolve with time. Supporting evidence comes from studies of cell anatomy, physiology, and biochemistry; cell reproduction and genetics; and our method of classifying living things. Current and futuristic issues surrounding DNA technology will be considered. The interrelations between organisms are also discussed.

Computer software/interfaces, demonstrations, and hands-on laboratories relate science content to current applications in our everyday life. A variety of activities and experiences will accommodate the unique needs and varied learning styles of all students. Lesson activities will develop organizational skills, analytical reasoning, and problem solving. The topics and outcomes of this course reflect the parameters defined by MSDE Biology High School Core Learning Goals.

Prerequisite for Biology I: Chemistry I.

### CHEMISTRY II

Course #: 154816 (Academic) 1 credit

### HONORS CHEMISTRY II

Course #: 154818 (Honors) 1 credit

Chemistry II is offered to those students who wish to extend their study of chemistry. This laboratory/lecture oriented course is designed to specifically cover organic chemistry, qualitative analysis, and aspects of physical and biochemistry. Strong emphasis will be placed on the methods of production and analysis of organic and inorganic compounds, the commercial impact and cost analysis of various compounds, and the laboratory techniques necessary to complete these tasks. The inclusion of the Organic Chemistry unit and the associated activities including the manufacture and testing of some pharmaceuticals will incorporate the outcomes of the manufacturing systems of Technology Education. Some of the organic activities are: the synthesis of aspirin, the analysis of aspirin products, the analysis of antacid products, the production of nylon and rayon as polymers. The Cement unit incorporates the outcomes of the construction systems of Technology Education. Some of the cement activities include: the research of major construction failures, the normal consistency of hydraulic cement/concrete, the initial and final setting times of cement/concrete, the density of cement/concrete mixtures, and the heat of hydration (heat generated) of cement/concrete mixtures. The presentation of laboratory results including data representation, graphing skills, statistical analysis, writing skills, and critical thinking skills are essential for the success of all students. *Prerequisites for Chemistry II: Biology I.*

**HUMAN ANATOMY AND PHYSIOLOGY**

Course #: 156016 (Academic) 1 credit

**HONORS HUMAN ANATOMY AND PHYSIOLOGY**

Course #: 156018 (Honors) 1 credit

The course is designed to provide background for students interested in pursuing careers in medical fields. Topics of study will include: the skeleton, control systems, coordinated body functions, respiration, electrolyte balance, digestion, and regulation of water. Related mammalian dissections will enhance some units. Students are encouraged to seek the advice of science teachers when selecting their Anatomy course. *Prerequisites and other notes: Chemistry II.*

**AQUATIC ENVIRONMENTAL ECOLOGY***Course is only offered ODD YEARS.*

Course #: 152506 (Academic) ½ credit

The course is a study of basic aquatic environmental science. It includes lab and field study of water ecosystems of the Carroll County area. Outdoor investigations will be used when feasible. Indoor aquaria will model outdoor systems. Population biology and related management practices will be explored. Aquatic environmental science includes studying local sources of freshwater, ground water, pond ecosystems, and stream management. The connection between Carroll County streams and the Chesapeake Bay will lead to the study of the Bay as a unique ecosystem. *Prerequisite and other notes: Biology I. Students will have the opportunity to earn fifteen (15) service-learning hours during the course. The projects for these service hours will be extensions of the aquatic environmental science curriculum.*

**TERRESTRIAL ENVIRONMENTAL ECOLOGY***Course will be offered 2009-2010 school year; EVEN YEARS thereafter..*

Course #: 152606 (Academic) ½ credit

Terrestrial Environmental Science is a hands-on science course emphasizing relationships between the student and their impact on local environments. Outdoor investigations will be used when feasible. Course topics include ecosystem factors, biomes, urban and agricultural land use, forestry, waste management, alternative energy and carbon footprint. *Prerequisites and other notes: Biology I. Students will have the opportunity to earn fifteen (15) service-learning hours during the course. The projects for these service hours will be extensions of the terrestrial environmental science curriculum.*

**EARTH SCIENCE***Course is only offered ODD YEARS.*

Course #: 152706 (Academic) ½ credit

**HONORS EARTH SCIENCE***Course will be offered 2009-2010 school year; EVEN YEARS thereafter..*

Course #: 152708 ½ credit

This course is a study of Geology. Students will explore why the Earth's surface continues to change. The Earth's surface has been lifted up, pushed down, bent, and often broken to take the form that we see today. Computer simulations and data bases will be used to incorporate Land Sat and GPS technologies into the study of the Earth's surface and interior. The Outcomes of the course will reflect the content defined by the MSDE Earth and Space Core Learning Goals. *Prerequisite for Level 6 – Biology I. Prerequisites for Level 8 – Biology I and Intermediate Algebra/Data Analysis*

**EARTH AND SPACE SCIENCE***Course will be offered 2009-2010 school year; EVEN years thereafter..*

Course #: 153106 (Academic) ½ credit

**HONORS EARTH AND SPACE SCIENCE***Course is only offered ODD YEARS.*

Course #: 153108 (Honors) ½ credit

This course is a study of meteorology and astronomy, and how they interact with one another. A variety of software packages will model content that will enhance the understanding of Earth and Space concepts. Weather satellite images will provide current data to reinforce the understanding of changes in our atmosphere. The Internet will be used to access space related data from space probes, satellites and telescope observations. The Outcomes of this course will reflect the parameters defined by the MSDE Earth and Space High School Core Learning Goals. *Prerequisite for Level 6 – Biology I. Prerequisites for Level 8 – Biology I and Intermediate Algebra/Data Analysis*

**HONORS SCIENCE RESEARCH I**

Course #: 156618 (Honors) 1 credit

Scientific Research acquaints students with the fundamental skills and procedures of individual research. Students will receive instruction in use of library resources, computer on-line services (Internet), computer applications (data bases, graphing, graphics, spreadsheets, and work processing), and statistical analysis. These processes will be integrated to a series of assigned laboratory activities representative of the different content areas. The use of electronic test equipment, as well as, computer interface probes are an integral part of data collection. There is a direct application of the science content to its appropriate technological applications. Students will be given extensive guidance in the preparation of a research paper to be prepared by the end of the course. An individual research project will also be developed during the course. *Prerequisites and other notes: Biology. Recommended for grade 11 or 12. This course may provide students with the opportunity to earn ten (10) service-learning hours toward meeting their Student Service Graduation Requirement.*

**HONORS SCIENCE RESEARCH II**

Course #: 156718 (Honors) 1 credit

The student will develop a project and scientific paper suitable for presentation. The project may be a continuation from the previous year's Science Research I class or a new project, though all projects will incorporate lab and computer skills learned in Science Research I. The projects may involve other schools, and students may work in cooperation with community and business leaders, as well as, local scientists and professionals. Students will develop advanced skills in Computer Aided Design, web site development, and authoring advanced multimedia presentations. The student will have the opportunity to develop the skills needed for more sophisticated laboratory work. Students must be responsible and disciplined as the class requires a large amount of independent work. *Prerequisites and other notes: Science Research I. Recommended for grade 12. This course may provide students with the opportunity to earn ten (10) service-learning hours toward meeting their Student Service Graduation Requirement.*

## SCIENCE LABORATORY AIDE

Course #: 157206 (Academic) ½ credit

This course is designed for students interested in learning how to assist other students in improving their content knowledge and/or skills in science. Specifically, the aide helps the teacher in the preparation and/or distribution of instructional materials, laboratory preparation, instructional assistance, laboratory maintenance, tutoring, helping individual students, and providing other assistance to the teacher as needed. Assistants are required to attend training. Their supervision is the responsibility of the assigned teachers. *Prerequisites and other notes: This course is for elective credit only and cannot be used as one of the required courses for graduation. Ten (10) service-learning hours may be earned.*

## AP BIOLOGY

Course #: 154319 (AP) 1 credit

The AP Biology course is designed to be the equivalent of a college introductory course taken by biology majors during their first year at college. Topics covered will be: (1) Molecules and Cells, (2) Heredity and Evolution, and (3) Organisms and Populations. Students will develop a conceptual framework for modern biology and to help students gain an appreciation for the processes of science. Twelve AP laboratories will be offered during the class. Students are encouraged to sit for the College Board's Advanced Placement Biology Examination. *Prerequisites and other notes: Biology I and Honors Human Anatomy and Physiology. Honors Human Anatomy and Physiology may be taken concurrently with AP Biology.*

## AP CHEMISTRY

Course #: 154919 (AP) 1 credit

The AP Chemistry course is designed to be the equivalent of a college introductory Chemistry course taken by chemistry majors during their first year at college. Topics such as the Structure of Matter, Kinetic Theory of Gases, Chemical Equilibria, Chemical Kinetics, and the basic concepts of thermodynamics will be presented in considerable depth. Twenty-two AP laboratories will be completed. Students are encouraged to sit for the College Board's Advanced Placement Chemistry Examination. *Prerequisites and other notes: Chemistry II.*

## AP ENVIRONMENTAL STUDIES

*Course will be offered 2009-2010 school year; EVEN YEARS thereafter.*

Course #: 153019 (AP) 1 credit

The AP Environmental Studies course is designed to cover one semester of an introductory college course in Environmental Science. Topics included in the course will be: (1) Interdependence of Earth's Systems, (2) Human Population Dynamics, (3) Renewable and Non-renewable Sources, (4) Environmental Quality, (5) Global Changes, and (6) Environment and Society. Eighteen laboratories format content via the processes of science. Students are encouraged to sit for the College Board's Advanced Placement Environmental Studies Examination. *Prerequisites and other notes: Biology I.*

## AP PHYSICS *Course will be offered 2009-2010 school year; EVEN YEARS thereafter.*

Course #: 155519 (AP) 1 credit

The AP Physics course is an algebra-based course designed to be the equivalent of a college introductory Physics course. Topics to be included will be: (1) Newtonian Mechanics, (2) Thermal Physics, (3) Electricity/Magnetism, (4) Waves/Optics, and (5) Atomic and Nuclear Physics. Students are encouraged to sit for the College Board's Advanced Placement Physics Examination. *Prerequisites and other notes: Physics or Conceptual Physics, Intermediate Algebra/Data Analysis*

## SOCIAL STUDIES

### GOVERNMENT

Course #: 100111 (Basic) 1 credit  
100116 (Academic) 1 credit

### HONORS GOVERNMENT

Course #: 100118 (Honors) 1 credit

This course develops content and skills related to the four Core Learning Goals for government. Students demonstrate an understanding of the principles, institutions and processes of political systems, peoples of the nation and world, geography, and economics. *Prerequisites and other notes: Recommended for grade 9; required for graduation. Five (5) service-learning hours may be earned.*

### UNITED STATES HISTORY

Course #: 100311 (Basic) 1 credit  
100316 (Academic) 1 credit

### HONORS UNITED STATES HISTORY

Course #: 100318 (Honors) 1 credit

The major purpose of this course is to enable pupils to relate past knowledge and experience to the history of the 20th century. Significant events of the 18th and 19th centuries will be reviewed. The events of the 20th century will be studied through the investigation of historic, geographic, political, economic, and social-cultural themes. *Prerequisites and other notes: Recommended for grade 10 and 11; required for graduation. Ten (10) service-learning hours may be earned.*

### AP UNITED STATES HISTORY

*Course is only offered EVEN YEARS.*

Course #: 100419 (AP) 1 credit

This course is designed to place demands on pupils equivalent to those of a college-level course in U.S. History. Topics studied include: colonial period, American Revolution, Jacksonian democracy, Civil War and reconstruction, populism and progressivism, New Deal, and foreign and domestic affairs since 1945. Among other competencies to be developed by the student are: (1) an awareness of the consequences of United States actions in world events; (2) an ability to analyze historical documents and narratives, and (3) an understanding of the major challenges faced by the peoples of this nation in the past and present. Extensive interpretive writing will be expected of each student, in addition to outside reading. Students are encouraged to sit for the College Board's Advanced Placement United States History Examination. *Prerequisites and other notes: Recommended for grades 10-11; fulfills the graduation requirement for a course in United States History.*

**WORLD HISTORY**

Course #: 102111 (Basic) 1 credit  
 102116 (Academic) 1 credit

**HONORS WORLD HISTORY**

Course #: 102118 (Honors) 1 credit

This course emphasizes significant changes that are considered turning points or benchmarks in world history from 1400 to the present. Study of historic, political, economic, geographic, and social perspectives and trends allows students to analyze the emergence and diffusion of civilizations, cultures and nations, and their contributions to the modern world. *Prerequisites and other notes: Recommended for grades 10-11; required for graduation.*

**AP WORLD HISTORY**

*Course is only offered ODD YEARS.*

Course #: 102119 (AP) 1 credit

This course is designed for students to acquire a greater understanding of the development of global processes and associations based upon contacts that occur with a myriad of human societies. Students will study an amalgamation of judicious factual knowledge that incorporates analytical skills in order to highlight the disposition of transformations within international frameworks derived as the result of causes and consequences utilized as comparisons among major societies. The course will put emphasis on knowledge that is significant and factual. Students will be challenged to interpret issues in conjunction with historical evidence based on an understanding of cultural, institutional, and technological precedents combined with geography to set the human stage. Periodization will be overtly discussed to provide students with a thorough understanding of how principles are formed to deal with change with a focused consistent awareness to contacts among societies that form the core of world history as a field of study. Students are encouraged to sit for the College Board's Advanced Placement World History Examination. *Prerequisites and other notes: Fulfills the graduation requirement for a course in World History. Students are encouraged to take World History as a prerequisite.*

**AP EUROPEAN HISTORY**

*Course is only offered EVEN YEARS.*

Course #: 100719 (AP) 1 credit

This course is designed to place demands on students which are equivalent to a college-level course in European history. Students will develop a solid familiarity with the intellectual, philosophical, and historical background of European civilization. Among other competencies to be developed by the student are: (1) an awareness of the consequences of European contacts with the world, (2) an ability to analyze historical documents and narratives, and (3) an understanding of the major social and political forces which have changed in modern times and their effects on the modern world. Extensive interpretive writing will be expected of each student, in addition to outside reading. Students are encouraged to sit for the College Board's Advanced Placement European History Examination. *Prerequisites and other notes: World History.*

**AMERICAN REVOLUTION/CIVIL WAR**

Course #: 103006 (Academic) ½ credit

This course provides students with an opportunity to investigate the causes, events and results of both conflicts. "American Revolution" will help students understand the revolt of the American colonists against the British. "Civil War" will help them examine the major battles, leaders, and weapons related to this era.

**ANCIENT AND MEDIEVAL HISTORY**

Course #: 101306 (Academic) ½ credit

This course provides an overview of civilizations from the earliest of the Sumerians and Egyptians to those of the Middle Ages. Students will explore the development of political systems, economics, and cultures of peoples in various parts of the world. They will examine ideas, events, and trends associated with the rise and fall of civilizations. *Prerequisites and other notes: Recommended for grades 10-12.*

**ISSUES IN AMERICAN SOCIETY**

Course #: 101506 (Academic) ½ credit

This course is designed to make the student aware, concerned, and active in the pursuit of solutions to issues and problems which confront Americans today. Included among these issues are: crime, poverty, aging and death. A number of views are presented to help students examine current issues from different perspectives. A wide variety of paperbacks and audio-visual materials is used to familiarize pupils with the issues analyzed. Students are expected to engage in class and group discussions and will have the opportunity to interact with community resource persons. *Prerequisites and other notes: Recommended for grades 11-12. Ten (10) service-learning hours may be earned.*

**INTERNATIONAL STUDIES**

*Course is only offered ODD YEARS.*

Course #: 102106 (Academic) ½ credit

International Studies is designed to make students aware of current international problems, tensions and conflicts. Topics studied include U.S. foreign policy interests and issues and current world hot spots such as the Middle East, the former Soviet Union, the new South Africa, and the former Yugoslavia. The course is flexible enough to study any major world crisis which may arise. Emphasis is placed on the historical background leading to the current crisis. *Prerequisites and other notes: Recommended for grades 10-12.*

**POLITICAL SCIENCE**

*Course is only offered EVEN YEARS.*

Course #: 105706 (Academic) ½ credit

Political Science investigates the broad range of human activities referred to as politics, political science and/or government. The content addresses a wide variety of historical and contemporary topics related to the interactions of national, state and local politics. Course work includes debates, cartoon analysis, mock trials, political polling, media analysis, and other student-centered activities. *Prerequisites and other notes: Recommended for grades 11-12.*

**WORLD GEOGRAPHY**

*Course is only offered ODD YEARS.*

Course #: 106006 (Academic) ½ credit

This general elective course is designed to enable students to acquire geographic knowledge and skills and to use them to investigate developed and developing nations, local, national and global environmental issues, human geographic issues and linkages between physical and human characteristics of regions. Emphasis will be placed on using geographic skills related to selecting, designing and interpreting appropriate maps, drawing conclusions

from different types of data, planning and organizing a geographic research project, and using appropriate forms of graphs, tables, diagrams, and charts. Students will work to develop a spatial perspective and an increased sense of global responsibility.

## **SOCIOLOGY**

Course #: 105106 (Academic) ½ credit

This course covers the fundamentals of sociology. It includes the study of how groups relate to each other, how groups change, the role of the individual in groups, and how groups affect individual members. Students investigate the components of culture, social behaviors of individuals in society, and current social problems. A variety of learning techniques are utilized to meet the needs of students of all ability levels. *Prerequisites and other notes: Recommended for grades 10-12.*

## **ECONOMICS** Course is only offered EVEN YEARS.

Course #: 105406 (Academic) ½ credit

This course covers the fundamentals of economics. It is a study of how individual citizens, businesses and societies make decisions using economic reasoning in order to best use limited resources to satisfy unlimited wants. Focusing on the mixed market economy in the United States, students will use microeconomic and macroeconomic approaches to topics such as scarcity, demand, supply, inflation and the Federal Reserve System. Current economic problems, the global economy, and alternative economics systems are also included. A variety of learning techniques, simulations, research skills and activities are utilized to meet and challenge student inquiry. *Prerequisites and other notes: This course is a prerequisite for AP Macroeconomics. Recommended for grades 11-12.*

## **PSYCHOLOGY I**

Course #: 104216 (Academic) 1 credit

## **HONORS PSYCHOLOGY I**

Course #: 104218 (Honors) 1 credit

This course is designed to help students think about themselves and their actions. Students concentrate on units related to the nature of psychology, biological influences on behavior, intelligence and conditioning, personality, and psychological disorders. Learning strategies include experiments and open discussions on the various theories of psychology. *Prerequisites and other notes: Recommended for grades 10-12. The honors course is recommended for students who want to prepare for AP Psychology.*

## **AP PSYCHOLOGY** Course is only offered ODD YEARS.

Course #: 104519 (AP) 1 credit

This course is designed for the student who wishes to continue exploring the field of psychology by studying such topics as developmental psychology, gender role development, personality theories, abnormal psychology, and treatment of psychological disorders. Students taking this course will have a solid background for college psychology. Students are encouraged to sit for the College Board's Advanced Placement Psychology Examination. *Prerequisites and other notes: Completion of Psychology I preferred.*

## **SOCIAL STUDIES AIDE**

Course #: 106506 (Academic) ½ credit

This course is designed for students interested in learning how to assist other students in improving their content knowledge and/or skills in social studies. Specifically, the aide helps the teacher in the preparation and/or distribution of instructional materials, tutoring and helping individual students, and providing other assistance to the teacher as needed. Instructional Aides are required to attend training. Their supervision is the responsibility of the assigned teacher. *Prerequisites and other notes: This course is for elective credit only and cannot be used as one of the required courses for graduation. Ten (10) service-learning hours may be earned.*

## **INDEPENDENT STUDY - SOCIAL STUDIES**

Course #: 106608 (Honors) ½ credit

This course is for students who wish to prepare a project on a social studies topic of particular interest to them. Students hold weekly conferences with the teacher. This time is used to check progress, give assistance, and review research methods. For the most part, the student works independently on the preparation of a research project. *Prerequisites and other notes: Recommended for grade 12. Recommended for highly able students. Students taking this course must have had at least 3 credits of social studies and possess appropriate research skills for independent study projects. Permission of the instructor and approval of principal are required.*

# **SPECIAL EDUCATION RESOURCE EDUCATION**

## **AIDE IN SPECIAL EDUCATION**

Course #: 951106 (Academic) ½ credit

This course is designed to allow interested students in grades 11 and 12 the opportunity to assist special education students and their teachers. The duties include assisting and tutoring special education students to be successful in their special education and regular education classes. The aide will also assist the teacher with distributing materials, correcting papers, duplicating materials, and providing other assistance to the teacher as needed. *Prerequisites and other notes: Ten (10) service-learning hours may be earned.*

## **LEARNING FOR INDEPENDENCE**

Course #: 960001 (Basic) LFI-I ½ credit

960011 (Basic) LFI-II 1 credit

The Learning For Independence Secondary Program has been designed to meet the unique needs of students with a disability. A student is placed in this program with an approved Individual Education Plan (IEP) by the Special Education Team. The course provides a sequence of skills essential for students whose needs necessitate extensive instruction in tasks critical for functioning in basic life areas. In addition to instruction in functional academics such as math, citizenship, practical science, and language skills, students receive integrated instruction on skills to address preparation for employment, interpersonal and behavior skills, communication and activities of daily living to appropriately prepare them for their transition to post school life. Ten (10) service-learning hours may be earned.

## LEARNING RESOURCE CLASSES

Course #: 956901 (Basic) General Tutorial ½ credit

This placement is designed for the student assigned by the IEP committee depending upon the needs identified in the Individualized Education Plan. The student will be taught how to process information, use content area materials, and be instructed in oral expression, written expression, listening comprehension, mathematics calculation and/or mathematics reasoning, basic reading and/or reading comprehension, social skills and thinking skills  
*Prerequisites and other notes: This course may be used to meet the State requirements for the Maryland High School Certificate and/or to supplement classes in English, Social Studies, Math or Science.*

## TECHNOLOGY EDUCATION

### FOUNDATIONS OF TECHNOLOGY

Course #:450216 (Academic) 1 credit

This course provides the fundamental knowledge and hands-on learning experiences for all students to advance their technological literacy. This class will focus on the study of the designed/human-made world. A technologically literate citizen has the ability to understand, use, manage, and assess technological products and processes. In this course, students will acquire knowledge and complete activities in the following areas of the designed world: agricultural and biotechnology; information and communication technology; manufacturing and construction technology; and, power, energy, and transportation technology. Students will also learn about the nature of technology, technological impacts, engineering design process, core technologies, problem solving techniques, and technological systems. *Prerequisites and other notes: This course is a graduation requirement.*

### ELECTRONICS

Course #: 453516 (Academic) 1 credit

Electronics is the study of electrons and electrical devices. Information and communication systems rely on electronics. Using a wide variety of test equipment and simulation software, students will design, build, and troubleshoot electrical circuits. Both analog and digital circuits will be explored. Students will learn about conductors, insulators, Ohm's law, magnetism, resistors, motors, logic gates, and AC and DC current. This course is for all students interested in learning how electrical devices work and those that have an interest in engineering.

*Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit. A lab fee may be charged for some activities.*

### GRAPHIC COMMUNICATIONS

Course #:455316 (Academic) 1 credit

Graphic communication systems include the design, layout, and production of visual messages. Students will use scanners, computer software, digital cameras, and original artwork to create professional posters, brochures, books, packages, and advertising materials. Students will learn about typography, design elements, electronic prepress, color management, and binding techniques. This course is for all students interested in graphic design, computer graphics, commercial art, publishing, and printing. *Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit. A lab fee may be charged for some activities. Graphic Communications is part of the Print Production and Video Production completer program.*

### MANUFACTURING AND CONSTRUCTION TECHNOLOGIES

Course #:452216 (Academic) 1 credit

Manufacturing is the process of converting raw materials into products. The manufacturing world consists of a variety of materials such as wood, plastics, ceramics, composites, and metals. Processes consist of forming, separating, conditioning, and fabrication (combining). Students will learn about durable and non-durable goods. Construction is the building of structures. The construction world consists of homes, roads, bridges, and other structures. Using hands-on activities, students will learn that structures are made from a wide variety of products and processes. During this course, an equal emphasis will be placed on manufacturing and construction systems. This course is for all students interested in designing and building physical products or structures. *Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit. A lab fee may be charged for some activities. When combined with other courses, this course is part of a completer program.*

### POWER, ENERGY, AND TRANSPORTATION TECHNOLOGIES

*Course is only offered EVEN YEARS.*

Course #:454216 (Academic) 1 credit

Energy is increasingly important in today's global economy. In this course, students will see the relationships between energy, power, and transportation. They will learn that energy cannot be created or destroyed, but it can be converted from one form to another. Students will learn about renewable and non-renewable energy resources and how they can be used in power generation and transportation systems. Transportation is the process of moving people, goods, and materials. Land, air, water, and space transportation systems will be examined. *Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit. A lab fee may be charged for some activities.*

### TECHNICAL DRAWING AND CADD

Course #:450716 (Academic) 1 credit

Technical drawing is used to communicate engineering and architectural designs. CADD is an acronym for Computer Aided Design and Drafting. Students will use hand tools and computer software to create multi-view drawings, working drawings, pictorial drawings, sectional drawings, parallel-line developments, models, floor plans, and elevations. An equal emphasis will be placed on mechanical and architectural drafting. This course is for all students interested in engineering or architecture. *Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit. A lab fee may be charged for some activities. When combined with other courses, this course is part of a completer program.*

## TECHNOLOGICAL ISSUES AND IMPACTS

Course #: 451116 (Academic) 1 credit

*Course is only offered ODD YEARS.*

This course focuses on the social, cultural, political, and environmental impacts of technology. Technology is neither good nor bad, but decisions about the use of technological products and processes can result in desirable or undesirable consequences. Students will learn that technology can have unintended consequences and that the development of technologies often poses ethical issues. Through design and problem solving activities, student teams will address complex issues and propose alternative solutions to technological developments. Sustainable development will be a focus. This course is for all students who are interested in debating issues regarding technological development, weighing the trade offs between the positive and negative effects. *Prerequisites and other notes: Foundations of Technology. A lab fee may be charged for some activities. This course partially satisfies the advanced technology credit.*

## INDEPENDENT STUDY - TECHNOLOGY EDUCATION

Course #: 457206 (Academic) ½ credit

This course is designed for the student who has satisfactorily completed all the courses offered in a specific area of study and who wishes to work independently to acquire further knowledge and skills. *Prerequisites and other notes: Permission of the instructor and approval of the principal are required.*

## WORLD LANGUAGES

### ESOL

Course #: 058316-I (Academic)	1 credit	058516-III (Academic)	1 credit
058416-II (Academic)	1 credit	058616-IV (Academic)	1 credit

These courses are designed for English language learners (ELLs) who have not yet met the criteria for exit from the ESOL Program in Carroll County. Students work in small groups to develop listening, speaking, reading, writing and content area skills. *Prerequisites and other notes: ESOL I and II may count towards world language credit if taken consecutively, or as elective credit. ESOL III and IV may only count towards elective credit, and can only be taken upon successful completion of ESOL I and II. (Recommendation from ESOL Program/Designee is required for placements.)*

### FRENCH I

Course #: 702016 (Academic) 1 credit

As a building block for further study in French, the students will know and use the present and simple future tenses, as well as other basic grammatical concepts. The students will also ask and answer questions about personal information and daily life activities through teacher-student interaction and cooperative practice. The students will become aware of the value of learning a world language in a multicultural society. A variety of cultural topics pertinent to the francophone world will be introduced. Primary emphasis will be on speaking and listening, with integration of reading and writing.

### FRENCH II

Course #: 702316 (Academic) 1 credit

In French II, continued emphasis will be placed on speaking and listening, as well as integrating reading and writing. Students will learn and use the different past tenses and additional grammatical concepts. Students will continue to explore and discuss cultural topics as they relate to daily life and the francophone world. Supplementary activities and readings will be introduced. Daily opportunities for cooperative practice and interaction in French will take place. *Prerequisites and other notes: Successful completion of French I.*

### HONORS FRENCH III

Course #: 702218 (Honors) 1 credit

Progressing along the language continuum, students in French III will continue to emphasize their oral, written, and aural skill. They will increase their proficiency, both communicatively and linguistically. The remaining indicative and subjunctive tenses will be covered. Students will explore, in greater depth, individual French-speaking regions and cultural-historical figures. Students will read and react to short stories, poems, and novels. Cooperative interaction in French will be a daily occurrence. *Prerequisites and other notes: Successful completion of French II.*

### HONORS FRENCH IV

Course #: 702418 (Honors) 1 credit

Students enrolling in French IV will continue to improve their communicative and linguistic proficiency. Students will review and expand on all previously taught grammatical structures. Students actively use French in creative and practical situations on a daily basis. Units focusing on history, art, music, literature, and current events are presented. Students develop independent and collaborative projects based on the content of these units. *Prerequisites and other notes: Successful completion of French III.*

### AP FRENCH

Course #: 702519 (AP) 1 credit

Students will continue to improve their communicative and linguistic proficiency. Advanced grammar topics will be addressed in addition to an intensive review of all previously taught concepts. Students are encouraged to sit for the College Board's Advanced Placement French Language Examination. *Prerequisites and other notes: Successful completion of French IV.*

### INDEPENDENT STUDY - FRENCH

Course #: 702618 (Honors) 1 credit

This course is designed for those students who have completed all levels of a world language offered by a school or who, in the judgment of their teacher, are sufficiently proficient in the language that they can benefit from additional work in this area. It is an individualized course and students may contract for a grade. The emphasis may be on culture and civilization with increased time spent on reading and writing. Students may also tutor other students, make tapes and other teaching materials, and complete independent projects of interest.

## **GERMAN I**

Course #: 703016 (Academic) 1 credit

As a building block for further study in German, the students will know and use the present tense and other basic grammatical concepts. The students will also ask and answer questions about personal information and daily life activities through teacher-student interaction and cooperative practice. The students will become aware of the value of learning a world language in a multicultural society. A variety of cultural topics will be introduced. Primary emphasis will be on speaking and listening, with integration of reading and writing.

## **GERMAN II**

Course #: 703116 (Academic) 1 credit

Continued emphasis will be placed on speaking and listening, as well as integrating reading and writing. In addition to practicing previously taught topics, students will know and use the past tense and other grammatical concepts. Daily opportunities will be provided for students to converse in German. A variety of cultural topics will be pursued as students further their study of German-speaking countries. *Prerequisites and other notes: Successful completion of German I.*

## **HONORS GERMAN III**

Course #: 703218 (Honors) 1 credit

Students will achieve greater linguistic accuracy in reading, writing, listening, and speaking. An increased emphasis on grammar study will include additional past tense work and adjective agreement. Students will continue to converse daily as they utilize previously taught and current material. Writing skills will increase as students express their ideas and respond to various reading selections. Additional exposure to the German-speaking countries will be provided. *Prerequisites and other notes: Successful completion of German II.*

## **HONORS GERMAN IV**

Course #: 703418 (Honors) 1 credit

Students enrolling in German IV will continue to improve their communicative and linguistic proficiency. Students will review and expand on all previously taught grammatical structures. Students actively use German in creative and practical situations on a daily basis. Units focusing on history, art, music, literature, and current events are presented. Students develop independent and collaborative projects based on the content of these units. *Prerequisites and other notes: Successful completion of German III.*

## **AP GERMAN**

Course #: 703519 (AP) 1 credit

Students will continue to improve their communicative and linguistic proficiency. Advanced grammar topics will be addressed in addition to an intensive review of all previously taught concepts. Students are encouraged to sit for the College Board's Advanced Placement German Language Examination. *Prerequisites and other notes: Successful completion of German IV.*

## **INDEPENDENT STUDY - GERMAN**

Course #: 703618 (Honors) 1 credit

This course is designed for those students who have completed all levels of a world language offered by a school or who, in the judgment of their teacher, are sufficiently proficient in the language that they can benefit from additional work in this area. It is an individualized course and students may contract for a grade. The emphasis may be on culture and civilization with increased time spent on reading and writing. Students may also tutor other students, make tapes and other teaching materials, and complete independent projects of interest.

## **SPANISH I**

Course #: 700016 (Academic) 1 credit

As a building block for further study in Spanish, the students will know and use the present tense and other basic grammatical concepts. The students will also ask and answer questions about personal information and daily life activities through teacher-student interaction and cooperative practice. The students will become aware of the value of learning a world language in a multicultural society. A variety of cultural topics pertinent to the Hispanic world will be introduced. Primary emphasis will be on speaking and listening with integration of reading and writing.

## **SPANISH II**

Course #: 700116 (Academic) 1 credit

As in Spanish I, the primary emphasis will be placed on listening and speaking activities. Students will be able to talk about events happening in the past. Students will have an opportunity on a daily basis for conversational practice. Specific topics of a cultural nature will continue to be addressed with special emphasis on the assimilation of Hispanic influence into mainstream United States society. *Prerequisites and other notes: Successful completion of Spanish I.*

## **HONORS SPANISH III**

Course #: 700618 (Honors) 1 credit

Students will achieve greater linguistic accuracy in reading, writing, listening, and speaking. Increased emphasis on grammar study will include all indicative and subjunctive verb tenses. The students will communicate about the future and other uncertainties through cooperative learning activities. Additional exposure to Hispanic culture will be provided. *Prerequisites and other notes: Successful completion of Spanish II.*

## **HONORS SPANISH IV**

Course #: 700318 (Honors) 1 credit

As in Spanish III, a high level of linguistic accuracy is expected. The students will review and expand on all previously taught grammatical structures. The study of culture is further stimulated by the in-depth study of literature, geography, history, and art. Based on these units, students will develop individual and group projects. Students will express themselves in both oral and written formats. Opportunity will be provided for both individual and group activities. *Prerequisites and other notes: Successful completion of Spanish III.*

**AP SPANISH**

Course #: 700719 (AP)

1 credit

Students will continue to improve their communicative and linguistic proficiency. Advanced grammar topics will be addressed in addition to an intensive review of all previously taught concepts. Students are encouraged to sit for the College Board's Advanced Placement Spanish Language Examination. *Prerequisites and other notes: Successful completion of Spanish IV.*

**INDEPENDENT STUDY - SPANISH**

Course #: 700818 (Honors)

1 credit

This course is designed for those students who have completed all levels of a world language offered by a school or who, in the judgment of their teacher, are sufficiently proficient in the language that they can benefit from additional work in this area. It is an individualized course and students may contract for a grade. The emphasis may be on culture and civilization with increased time spent on reading and writing. Students may also tutor other students, make tapes and other teaching materials, and complete independent projects of interest.

**WORLD LANGUAGES AIDE**

Course #: 700406 (Academic)

½ credit

This course is designed for students interested in learning how to assist other students in improving their content knowledge and/or skills in world languages. Specifically, the aide helps the teacher in preparation and/or distribution of instructional materials, tutoring and helping individual students, and providing other assistance to the teacher as needed. Instructional aides are required to attend training. Their supervision is the responsibility of the assigned teacher. *Prerequisites and other notes: Successful completion of Spanish II, French II, Latin II, or German II.*

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