



# High School Program of Studies and Career Pathways Planning Guide

2012-2013

Board of Education of Carroll County  
Westminster, Maryland

Approved at the October 12, 2011 Board of Education Meeting

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The following person has been designed to handle inquiries regarding the non-discrimination policies:

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Information concerning the Americans with Disabilities Act is available from the Director of Facilities or the Supervisor of Community and Media Relations.

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## **Mission**

The mission of Carroll County Public Schools 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.

## **Core Values**

- Never be satisfied in our pursuit of excellence.
- All students can learn and succeed – no excuses, no exceptions.
- All students and staff are entitled to a safe and orderly learning environment.
- Everyone's participation is paramount to our success.
- Treat everyone in an open, fair, honest, and respectful manner.

### **Message from the Superintendent . . . . .**

Thank you for taking the time to review the High School Program of Studies. The purpose of this document is to help students, parents, and school counselors plan a four-year educational program for high school.

A well thought-out high school program will prepare students for college and career readiness. By using the High School Program of Studies and the attached Pathways to Careers, students have the tools they need to map out both a short-range and long-range plan for high school study.

As courses are selected, please be sure to refer to the high school graduation requirements located in this document to ensure that you meet local graduation requirements. Also, please be aware that while approved course offerings available in Carroll County high schools are identified, each school develops its own program from these course offerings.

Our students today will have opportunities and challenges that will prepare them for tomorrow. Choosing a course of study for each student is an important step in preparing for that future. One way we can ensure that our students are successful is by working together to provide them with the very best educational experience.

Best wishes for a successful school year.

Stephen H. Guthrie  
Superintendent of Schools

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# The High School Program of Studies and Career Pathways Planning Guide

## 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.

It is also recognized that every student is on a pathway to a career - whether in the near or distant future. But how does a student get there, and will he or she be properly prepared? Has the student selected an education career plan suited to his or her interests and abilities? Will the student be able to enter a chosen career directly after high school, or will he or she need further training and/or higher education? These are all important questions for the student to consider before entering the highly competitive and technical workforce of the 21<sup>st</sup> century.

The **Pathways To Careers** program provides the direction needed to answer these questions. This innovative program is an integral part of the Carroll County School Improvement Plan and has been developed to accommodate all students in the school system. Consisting of six different career clusters (Arts, Business Contact, Business Operations, Science, Social Services, and Technical), the **Pathways To Careers** program . . . .

- helps students in making career decisions.
- identifies how specific courses correspond to specific careers.
- improves students' skills and increases their potential for employability and further training and education.

## Pathways To Careers prepares students to create a career plan which . . .

- allows them to move between job and further education.
- helps them to understand and have knowledge of a variety of jobs within a career field.
- creates awareness of training and educational opportunities.
- provides opportunity for training, re-training and further education.
- includes on-the-job experience.

To aid in planning a four-year course of study, this publication also includes a comprehensive list of all course offerings available to students. It is strongly recommended that students, parents, teachers, counselors, and administrators 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\*

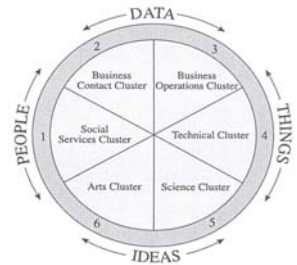
Not all programs and courses may be available at all schools.

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

# GETTING STARTED

## World of Work Map

An illustration of the relationship between work tasks and the six career clusters (Arts, Business Contact, Business Operations, Science, Social Services, and Technical).



## Career Clusters

Groups of occupational areas which are related to one or more of the four (4) work task areas.

## Work Task Areas

Four identified areas: people, data, things, ideas. These are matched to a student's interest, abilities, and preferences.

## Career Pathways

Include specific education, work and career choices.

## Completer Program

A series of courses in a specialized career area. Completer programs are available at the Career and Technology Centers and/or home high schools. Not all completer programs are offered at all school/centers and a completer course may be cancelled due to low enrollment. Some completer courses may be offered on alternate years.

## Articulated Program

A specified sequence of courses (Completer Program) that can be applied toward credits or advanced standing at a particular college or technical school.

## Apprenticeship Program

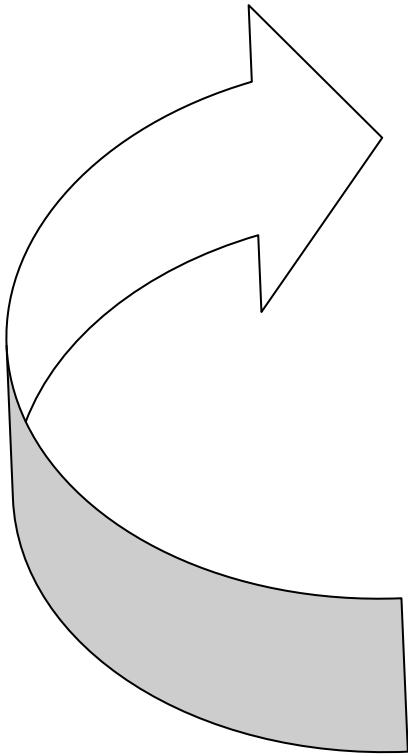
Combines supervised on-the-job training with related post-secondary instruction. It is sponsored by employers that are able to train at the workplace.

## Career Majors

Course sequences within a specific career cluster and pathway which enable a student to work toward a career option not addressed by a career and technology completer program. A minimum of four (4) credits of specified cross curricular course work constitutes a career major. Not all Career Majors are available at all schools and a related course may be cancelled due to low enrollment. Currently, there are thirty-one (31) career majors.

## HOW TO USE THIS BOOK

**The High School Planning Guide can be used throughout a student's high school years. Students can make maximum use of the included information by following the steps below. These steps can be repeated and revisited as often as needed.**



- Complete a career interest survey, such as Bridges ([www.Bridges.com](http://www.Bridges.com)) to help identify your interests and skills and the career cluster area in which they are located (Arts, Business Contact, Business Operations, Science, Social Services, Technical).
- Find the completer program or career major in your preferred cluster that most closely matches your career interests and skills in the first half of this book, The Pathways To Careers.
- Look up course descriptions in the Program of Studies section in the second half of this book.
- Develop and follow your Education Career Plan (**sample on page 8**) to include the required courses for either a completer program or career major in addition to career specific electives that are of interest to you.
- Use the course selection guideline grid, that includes blank areas, as you plan when you would schedule specific courses.
- Consider transition activities, such as work-based learning or articulated and transcribed credits (college credit for high school work) that are related to specific completer programs.

### Sample Educational Career Plan

<b>Subject Area (credits required)</b>	<b>Completed in 7<sup>th</sup>/8<sup>th</sup> Grade</b>	<b>CR</b>	<b>9th Grade</b>	<b>CR</b>	<b>10th Grade</b>	<b>CR</b>	<b>11th Grade</b>	<b>CR</b>	<b>12th Grade</b>	<b>CR</b>
English (4)										
Social Studies (3)										
Science (3)										
Mathematics (4)										
Physical Education (1)										
Health (.5)										
Tech Education (1)										
Financial Literacy (.5)										
Fine Arts (1)										
Alternatives for Meeting Graduation Requirements (page 12)										
World Language (2)										
or										
Completer Program										
Electives										
25 Total Credits Required	7 <sup>th</sup> /8 <sup>th</sup> Grade→		9th Grade→		10th Grade→		11th Grade→		12th Grade→	

Please refer to the following when planning:

Graduation Requirements – p. 11; Maryland State Colleges and Universities Admission Requirements – p. 16; Rigorous High School Program – p. 18; Dual Completion – p. 18

\*This sample plan is intended to be used by parents and students for pre-planning purposes. An official Educational Career Plan will be completed in collaboration with your high school counselor.

**Need  
To  
Know  
Information**





## Graduation Requirements

Subject	Required Credits	Required Courses
<b>English</b>	4	English 9, English 10, English 11 or AP Language and Composition, English 12 or AP 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 *Conceptual Physics and Chemistry I are prerequisites -Remaining credits from earth, life, environmental, and/or physical sciences that include laboratory experiences
<b>Mathematics</b>	4 For University System of Maryland requirements and dual completer students (see page 19)  OR 3 For Career and Technology Completer Students	-Algebra I/Data Analysis (or Algebra I/Data Analysis A and B) -Intermediate Algebra/Data Analysis -Geometry -Algebra II/Data Analysis ( For students entering grade 9 in 2011 and thereafter, one of the following courses must be taken during the final year of high school: Algebra II/Data Analysis, Trigonometry/Pre-Calculus, Calculus, or AP Calculus AB, AP Calculus BC, Trigonometry, Probability and Statistics, or AP Statistics)  -Two credits of Algebra -One credit of Geometry
<b>Physical Education</b>	1	-Physical Education I (1/2 credit)
<b>Health</b>	½	-Health 1
<b>Fine Arts</b>	1	Completed credit in any Fine Arts course may be applied to the Fine Arts Graduation requirements unless otherwise indicated.
<b>Technology Education</b>	1	-Foundations of Technology or Principles of Engineering (Project Lead the Way Completer Program)
<b>World Language</b>	2	-Two credits of the same World Language
<b>Or American Sign Language</b>	2	-Sign Language I, II, & III
<b>Or Advanced Technology</b>	2	-See Technology Courses listed on pages 126 & 127
<b>Or State Approved Career and Technology Completer Program</b>	4-9	-See Completer Programs on pages 12 & 13
<b>Financial Literacy</b>	½	-Financial Literacy or -Honors 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. 13)
- Take and pass the three required Maryland High School Assessments (English, Algebra/Data Analysis, and Biology), or take all three High School Assessments, and earn the combined passing scoring of 1208. 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 course requirements for University System of Maryland Admission and/or complete a state-approved career and technology completer program. (See p. 16 for University System of Maryland Admission Requirements.)

## 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 American Sign Language I, II, III, IV

<b>Alternative 2</b> Two credits of advanced technology education. Completion of two credits from the following courses will satisfy this requirement.	
Advanced Design Applications Graphic Communications Technological Design	Script Writing and Video Production 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 Services	All High Schools	4
Academy of Health Professions	Carroll County Career & Technology Center	4
Animal & Veterinary Science	All High Schools	4
Auto Service Technology	Carroll County 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	4
Building Maintenance - Option 2	Combination: All High Schools and Carroll County Career & Technology Center	4
Business Administration and Management	All High Schools	4
Career Research & Development	Gateway School and Flexible Student Support	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
Drafting	Carroll County Career & Technology Center	6
Early Childhood Education	All High Schools	5
Education – Middle and High School (Teacher Academy of Maryland)	Combination - All High 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 (ProStart)	Combination - All High Schools	4
Heavy Equipment and Truck Technology	Carroll County Career & Technology Center	6
Horticulture	All High Schools	4

<b>Program</b>	<b>Location</b>	<b>Credits</b>
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
Cisco Networking Academy	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

## **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 private or out-of-state schools after the completion of their freshman year. For those students transferring into CCPS after the freshman year, the hours are pro-rated as follows: Sophomores are required to complete 40 hours; junior year 30 hours; first semester of the senior year 10 hours; second semester of 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)      Aquatic Environmental Science (15 hours)  
Child Development Laboratory (30 hours)      Government (5 hours)  
Terrestrial Environmental Science (15 hours)

#### **Courses Providing 10 Hours:**

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

Academy of Health Professions	Drafting	Masonry
Auto Service Technology	Early Childhood Education	Print Production
Building Maintenance	Electrical Construction	Professional Baking and Pastry
Carpentry	EST	Cisco Networking Academy
Cisco Academy	Floral Design	Textiles & Fashion Careers
Collision Repair	Heavy Equipment & Truck Tech.	Video Production
Computer Technology	HVAC	Welding Technology
Cosmetology	Landscape Design & Construction	
Culinary Arts	Manufacturing Machine Tech.	

### **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.
- **Career Research & Development** – 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.

## **CONCURRENT ENROLLMENT**

If a student desires to enroll in a concurrent enrollment program at a local college during the senior year, he/she must be enrolled in 4 credits beyond the junior year at his/her home school and have met all specified graduation requirements. Although each student's plan is developed on a case-by-case bases to best meet the needs of the individual student, it is recommended that the student complete or be enrolled in English 11 and Algebra II/Data Analysis prior to requesting enrollment in a post-secondary program. Students completing college courses through concurrent enrollment may earn high school .5 elective credit for three (3) college credits at the 100 level/non-remedial course work and above on a pass fail basis. However, students may request that the final grade earned in their concurrent enrollment course be reflected on their high school transcript as elective credit and weighted as an AP/Transcripted course. Students have until the end of the semester in which they are enrolled concurrently to request that their college level course be included on their high school transcript. Students must take college placement tests and seek permission for concurrent enrollment/continuing education prior to the beginning of the semester for which the request is being made. Students must make an appointment with their school counselor and have a parent conference to review the educational plan, discuss course options at the college, and obtain appropriate paperwork. College courses should be taken at the 100 level and above. All expenses/fees/tuition at any post secondary institution are the responsibility of the student and his/her parent.

## **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.
- The student's program for the first year of college is approved by the local superintendent of schools if this program is included toward the issuance of a diploma; and at the conclusion of a full year of study, a written request for a Maryland High School Diploma is submitted to the superintendent together with a transcript or letter from the college to the high school principal indicating that the student has successfully completed a year of college work.

### **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.

**Credit by Exam:** In Carroll County credit toward high school graduation may not be earned by passing an examination, except in the case of seniors. According to COMAR 13A.03.02.05, students who have already completed all requirements for the Maryland High School Diploma except for a credit in either English 12 or Algebra II, may earn credit by using specific tests.

**English 12:** Students who desire to obtain Maryland High School Graduation credit for English 12 must take two tests; SAT and SAT Subject Test In Literature. To obtain the credit, the students must achieve a minimum combined score of 1080 on the SAT Subject Test In Literature and the writing portion of the SAT with a minimum of 520 on the writing portion of the SAT.

**Algebra II:** Students who wish to receive Maryland high school Graduation credit for Algebra II must achieve a minimum of 1150 on the American Diploma Project Algebra II exam.

A student choosing this option must put their request in writing to the principal prior to the start of the senior year.

## **COLLEGE ATHLETIC ELIGIBILITY**

The National Collegiate Athletic Association (NCAA) has specific guidelines for high school student athletes who wish to be eligible to compete in college athletics. There are five basic criteria which include:

1. graduation from high school with 2 foreign/world language credits earned during grades 9 through 12;
2. graduation from high school with mathematics credits through Algebra II/Data Analysis;
3. minimum core grade point average;
4. minimum ACT or SAT test score; and
5. completion of 16 core courses.

Planning for college and college athletics should begin in grade nine in order to complete the core courses. Students should register with the NCAA clearinghouse by the end of their junior year. Check with your school counselor for information concerning the specifics of the above criteria. CCPS Courses that meet NCAA eligibility criteria are marked with a ¶ in the course descriptions.

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

The Carroll County Career and Technology Center is a career specialization school. Students enrolled in a program at the center 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 Center is provided on a round-trip basis from the home school. Many of the Career and Technology courses include internships. 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
- promotion 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.

### **Note for all Career and Technology Education Programs:**

**End of program assessments may be required for all completer programs at both career and technology centers and comprehensive high schools.**

## **CAREER CONNECTIONS INTERNSHIPS**

Career Connections internships are the culminating (capstone) experience for students who have explored a career area by following a career major or completer sequence as outlined in *Pathways To Careers*. This program is operated by Carroll County Public Schools in partnership with participating employers. Internship placement and supervision are facilitated by the career coordinator at each comprehensive high school and the Carroll County Career and Technology Center. Students are placed at a work site according to aptitude, ability, preparation, interest and career plan. Students seeking an internship in a career area related to a career and technology education completer program must complete the program prior to or concurrent with the internship. The internship experience is guided by an individualized training plan that has been established through the cooperative effort of the student, school and employer.

Eligibility for an internship includes but is not limited to:

- a. Senior status during scheduled internship;
- b. 2.5 grade point average;
- c. 94% attendance during the previous quarter;
- d. HSA requirements met;
- e. 75 service learning hours completed;
- f. completed at least 3 credits of a completer or career major; and
- g. acceptable behavior/disciplinary record.

## **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

Subject			Credits	
<b>English</b>			4	
<b>World Language or Advanced Technology</b>			2**	
<b>Social Science/History</b> <ul style="list-style-type: none"> <li>• Government</li> <li>• United States History</li> <li>• World History</li> </ul>			3	
<b>Mathematics</b> 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>	Students entering 9 <sup>th</sup> grade during the fall of 2009 a <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>	Students entering 9 <sup>th</sup> grade during the fall of 2011 and thereafter must successfully complete Algebra II/Data Analysis and must take either Algebra II/Data Analysis, Trigonometry/Pre-Calculus, Calculus, or Statistics during the final year of high school.***	3	Students entering 9 <sup>th</sup> grade during the fall of 2009 and thereafter:  4***
<b>Science</b> 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 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.

### ONLINE COURSE OPTION

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 State Curriculum through the delivery of high-quality online courses for high school credit.

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

Courses offered through an online option have been reviewed and accepted by MSDE and/or CCPS for approved credit and are taught by highly-qualified teachers. Schools placing students in an online course are responsible for providing a mentor teacher and providing computer access. Courses are scheduled during the regular school day.

Students are able to register for online 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 an online course. Please contact your school 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 Advanced Placement (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 school 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 Language & Composition
- AP Literature & Composition

#### Fine Arts

- AP Studio Art
- AP Art: AP Studio 3D Design
- AP Art: AP Studio 2D Design
- AP Music Theory

#### Science

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

- AP French
- AP Spanish Language
- AP Spanish Literature
- AP German
- AP Latin-Vergil

#### Mathematics

- AP Calculus – AB
- AP Calculus – BC
- AP Statistics

#### Social Studies

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

#### World Languages

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			NON-WEIGHTED GPA
	AP/Transcripted	Honors	Academic/Articulated	For All Students, In All Courses, At All Levels
A	5.0	4.5	4.0	A = 4.0
B	4.0	3.5	3.0	B = 3.0
C	3.0	2.5	2.0	C = 2.0
D	1.0	1.0	1.0	D = 1.0
F	0	0	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, Conceptual Physics/Physics)
- 3 credits of Social Studies (Government, U.S. History, World History)
- 2 credits of the same World Language

There are 2 levels of achievement in the Maryland Scholars Program. Recognition will be given to eligible students with a minimum 2.5 non-weighted GPA. Special recognition will be given to eligible students with a minimum 3.5 non-weighted GPA.

### 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.

### DUAL COMPLETER

A secondary student who completes the requirements for both admission to the University of Maryland system and a Career and Technology Education program of study is a dual completer.

## CAREER AND TECHNOLOGY EDUCATION Completer Programs “Value Added Education”

Program	State or National Affiliation	Value Added
Academy of Health Professions	Maryland Board of Nursing	Certified Nursing Assistant
Accounting		Transcripted Credits
Administrative Services	Microsoft Office Specialist (MOS)	Articulated Credits MOS Certification
Animal & Veterinary Science		Articulated Credits
Auto Service Technology	National Automotive Student Skills Standards Assessment (NA3SA) – Developed by ASE (Auto Service Excellence) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA	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	College Board - CLEP	Articulated Credits CLEP: Principles of Management
Carpentry	National Center for Construction Education and Research (NCCER)	Articulated Credits National Registry (NCCER)

<b>Program</b>	<b>State or National Affiliation</b>	<b>Value Added</b>
	Associated Builders and Contractors (ABC)	ABC Apprenticeship
Cisco Networking Academy	Cisco Systems CompTia	Articulated Credits Cisco Certification CompTia A+ Certification
Collision Repair Technology	National Automotive Student Skills Standards Assessment (NA3SA) – Developed by ASE (Auto Service Excellence) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA	Articulated Credits ASE Certification
Computer Technology	College Board – Advanced Placement	Articulated Credits AP – Computer Science A
Cosmetology	Maryland Board of Cosmetology	Maryland Certification
Culinary Arts	American Culinary Federation (ACF)	Articulated Credits ACF Certification
Drafting		Articulated Credits
Early Childhood Education	MSDE Office of Child Care Educational Testing Service	Articulated Credits Maryland Certification ParaPro
Education – Middle & High School Teacher Academy of Maryland	Teacher Academy of Maryland Educational Testing Service	Transcribed Credits ParaPro
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 MFRI Certification
Engineering	Project Lead The Way	Transcribed Credits
Financial Services/Academy of Finance	National Academy Foundation	Transcribed Credits
Floral Design		Articulated Credits
Food Services and Hospitality Management	ProStart, National Restaurant Association Education Foundation (NRAEF)	Articulated Credits ProStart Certification ServSafe Certification
Heavy Equipment and Truck Technologies	National Automotive Student Skills Standards Assessment (NA3SA) – Developed by ASE (Auto Service Excellence) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA	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 NIMS Certification
Marketing	College Board - CLEP	Articulated Credits CLEP: Principles of Marketing
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 PrintEd Certification
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

## Post Secondary Connections

Completer Programs may be linked to post-secondary opportunities by articulation agreements. Programs which are articulated may be used for advanced standing or credits at specific colleges/Technical Schools (when a “B” or better average is maintained and other requirements are met in that program).

Program Name	School	Articulation	
		Credits	Location
Academy of Health Professions	CCCTC	#	L
Accounting	All	3+, #	H, L
Administrative Services	All	#	H, L
Animal & Veterinary Science	All	2	P
Auto Service Technology	CCCTC	15, 18, #, 12	L, P, R, T
Biomedical Science / PLTW	CCCTC	4+	O
Business Administration & Management	All	#, 9	L, P
Carpentry	CCCTC	#, 6	L, P
Cisco Networking Academy	CCCTC	#, 16	L, P
Collision Repair Technology	CCCTC	16, 15	L, P
Computer Technology	CCCTC	12, 10, #	H, L, P
Culinary Arts	CCCTC	7, 10, #	E, I, L
Drafting	CCCTC	3, #, 9	H, L, P
Early Childhood Education	All	6 #, 6	H, L, O
Education MS-HS / Teacher Academy of MD	All	4, 3, 3+	H, P, Q
Electrical Construction	CCCTC	#, 6	L, P
Emergency Services Technology	CCCTC	5	C, P
Engineering / PLTW	CCCTC	#, 16+, 3, 3	L, N, P, S
Financial Services / Academy of Finance	All @ WHS	6+, #	H, L
Floral Design	CCCTC / All	#	L
Food Service & Hospitality Management	All	#	B, E, I, K, M
Heavy Equipment & Truck Technology	CCCTC	7, #, 12	L, R, T
Horticulture	All	6	P
HVAC	CCCTC	#, 10, 6	L, P, T
Landscaping Design & Construction	CCCTC / All	#, 3	L, P
Manufacturing & Machine Technologies	CCCTC	#, 17	L, P
Marketing	All	9	P
Masonry	CCCTC	#, 6	L, P
Print Production	CCCTC	,4, 4, 3, 4	D, G, H, J
Textiles & Fashion Careers	CCCTC / All	Pending	F
Video Production	CCCTC	4	D
Welding	CCCTC	#	L
Wildlife & Natural Resources	All	2, #	A, L

### Articulation/Location Key

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>A – Allegany College of Maryland</li> <li>B – Anne Arundel Community College</li> <li>C – Approved by ACE/PONSI for College Equivalent Credit, MFRI</li> <li>D – Art Institute of Washington</li> <li>E – Baltimore International College</li> <li>F – Art Institute of York</li> <li>G – Bridgemont Community and Technical College</li> <li>H – Carroll Community College</li> <li>I – Howard Community College</li> <li>J – Montgomery College</li> <li>K – Paul Smith’s College</li> <li>L – Penn College of Technology (Individualized articulation may be arranged)</li> </ul> | <ul style="list-style-type: none"> <li>M – ProStart affiliated colleges nationwide</li> <li>N – Rochester Institute of Technology</li> <li>O – Stevenson University</li> <li>P – The Community Colleges of Baltimore County</li> <li>Q – Towson University</li> <li>R – Universal Technical Institute</li> <li>S – University of Maryland, Baltimore County</li> <li>T – University of Northwestern Ohio</li> <li># Number of credits determined on individual basis</li> <li>+Transcripted credit</li> </ul> |
|---|---|

#Number of credits determined on individual basis  
 +Transcripted credit

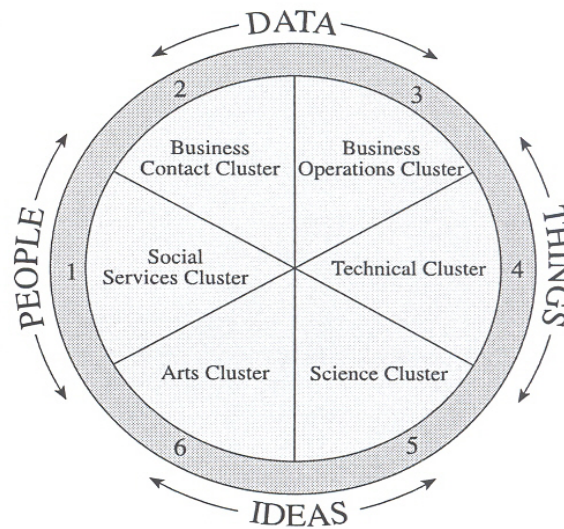
## Program Testing

Program testing may be linked to industry certification or post-secondary opportunities.

<b>Program</b>	<b>Industry or Assessment Option</b>	<b>Specific Test</b>
Academy of Health Professions	Maryland Board of Nursing	Certified Nursing Assistant Geriatric Nursing Assistant
Accounting	Carroll Community College	Transcripted Credit
Administrative Services	Microsoft Office Specialist (MOS)	Specialist Word or Excel
Auto Service Technology	National Automotive Student Skills Standards Assessment (NA3SA) – Developed by ASE (Auto Service Excellence) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA	Brakes Electrical/Electronic Systems Engine Performance Suspension/Steering
Biomedical Science / PLTW	Project Lead the Way – Stevenson University	Transcripted Credits
Building Maintenance	National Center for Construction Education and Research (NCCER)	NCCT Academic Core v2
Business Administration & Management	College Board - CLEP	CLEP Principles of Management
Carpentry	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	NCCT Academic Core v2 NCCT Academic Carpentry Level I v2
Cisco Networking Academy	Cisco Systems CompTia	CCENT, CCNA, CompTia A+
Collision Repair Technology	National Automotive Student Skills Standards Assessment (NA3SA) – Developed by ASE (Auto Service Excellence) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA	Non-Structural Analysis and Damage Repair, Painting and Refinishing, Structural Analysis & Damage Repair
Computer Technology	College Board – Advanced Placement	AP – Computer Science A
Cosmetology	Maryland Board of Cosmetology	Maryland Certification
Culinary Arts	American Culinary Federation (ACF)	ACF – Culinary Arts, Cook Level 2, Retail Commercial Baking
Early Childhood Education	Education Testing Service	ParaPro
Education MS-HS / Teacher Academy of MD	Education Testing Service	ParaPro
Electrical Construction	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	NCCT Academic Core v2 NCCT Academic Electrical Level I v2
Emergency Services Technology	Maryland Fire & Rescue Institute (MFRI)	EMT-B, HAZMAT, Firefighter I, Rescue Tech, Truck Company Operations
Engineering / PLTW	Project Lead the Way – University of Maryland, Baltimore County, Rochester Institute of Technology	Transcripted Credits
Financial Services / Academy of Finance	Carroll Community College	Transcripted Credits
Food Service & Hospitality Management	ProStart	ProStart Year I ProStart Year II ServSafe
Geographic Information Systems & Technology	GIS (Geographic Information Systems)	S.T.A.R.S. Entry-Level Technician Exam
Heavy Equipment & Truck Technology	National Automotive Student Skills Standards Assessment (NA3SA) – Developed by ASE (Auto Service Excellence) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA	Diesel Engines Electrical/Electronic Systems
HVAC	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	NCCT Academic Core v2 NCCT Academic HVAC
Manufacturing and Machine Technologies	National Institute for Metalworking Skills (NIMS)	Measurement, Materials, and Safety, Job Planning, Bench Work and Layout; other tests optional for qualified students
Marketing	College Board – CLEP	Principles of Marketing
Masonry	National Center for Construction Education and Research (NCCER) Associated Builders and Contractors (ABC)	NCCT Academic Core v2 NCCT Academic Masonry Level I
Print Production	Graphic Arts Education and Research Foundation (GAERF) – PrintED	Graphic Communications Digital File Preparation/Digital File Output
Welding Technology	National Center for Construction Education and Research (NCCER) American Welding Society (AWS)	NCCT Academic Core v2 NCCT Academic Welding

## Carroll County Public Schools

# Career Pathways



2012-13



## What type of work is involved in the *Arts* cluster?

- Individualized expression of creative or musical talent.
- Design, performing arts and fine arts.
- The application of artistic skills in the fields of photography, graphic arts, and design

## What are the *Arts* Pathways?

- Applied Arts – Visual
- Creative and Performing Arts
- Applied Arts – Written and Spoken

## What should you think about when considering a career in the *Arts* cluster?

### Do You . . . .

- ❖ like art, music, drama, and other creative interests?
- ❖ like to display your imagination through artistic, literary, musical or dramatic abilities?
- ❖ have a need for individualistic expression?
- ❖ value esthetics and artistic qualities?
- ❖ prefer free, unstructured situations or unconventional ideas?
- ❖ enjoy being creative, flexible, innovative or imaginative?
- ❖ prefer creative and expressive interaction with people?
- ❖ enjoy being an original thinker?
- ❖ value creative communication and expression of ideas, emotions or sentiments?

**If you answered YES to most of these questions, a career in the *Arts* cluster may be for you!**

**For more details, read on...**

# COMPLETERS

**COMPLETER: *Floral Design***

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Option 1 Completer Program Requirements</b>			Floral Design I (3)	Floral Design II (3)
<b>Option 2 Completer Program Requirements</b>		Floral Design (.5-1)	Floral Design I OR II (3)	Internship (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Honors Financial Management Using Software Applications (1), Accounting I (1), Business Principles & Practices (1), Horticulture (1), Intro Agriculture, Food & Natural Resources (1), Marketing (1), Art II: 2 & 3 D Art (.5-1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added: From:</b>	Articulated Credits (Individual articulations may be arranged.) Penn College of Technology			

**COMPLETER: *Media Communications Technology***

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements (#choose 1 credit from these)</b>		<b>Prerequisite:</b> # Graphic Communications (1) #Honors Commercial Art (1)	Print Production (3)	Video Production (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Script Writing & Video Production (1), Journalistic Writing (.5), Psychology I or Honors Psychology I (1), Business Principles & Practices (1), Drama I, II, III (.5-1.5), Art II: 2 & 3 D Art (.5-1), Technological Design (1), Marketing (1), Public Speaking (.5), Internship (.5-1)			
8 credits possible per year				
<b>Value Added: End of Program Testing:</b>	See Print Production and Video Production			

## COMPLETER: *Print Production*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b> (4 minimum credits) (#choose 1 credit from these)			#Graphic Communications (1) #Honors Commercial Art (1)	Print Production (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Art II: 2 & 3 D Art (.5-1), Journalistic Writing (.5), Psychology I or Honors Psychology I (1), Business Principles & Practices (1), Drama I, II, III (.5-1.5), Technological Design (1), Marketing (1), Newspaper Production (.5-1), Public Speaking (.5), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	3 articulated credits	4 articulated credits	4 articulated credits	4 articulated credits
	Carroll Community College	Art Institute of Washington	Montgomery College	Bridgmont Community & Technical College
	Computer Graphics	Advertising or Graphic Design	Desktop Publishing	Digital Design & Print Communications
<b>End of Program Test:</b> <b>Industry:</b> <b>Taken:</b>	Graphic Communications and Digital File Preparation/Digital File Output (Print Ed Certification)			
	Graphic Arts Education and Research Foundation (GAREF) - PrintED			
	During Print Production			

## COMPLETER: *Textiles & Fashion Careers*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Option 1</b> <b>Completer Program Requirements</b>			Textiles & Fashion Careers I (3)	Textiles & Fashion Careers II (3)
<b>Option 2</b> <b>Completer Program Requirements</b> (# Choose 2 credits from these)	#Clothing (.5-1) #Needlecraft (.5-1)	#Clothing (.5-1)	#Housing & Home Furnishings (.5)	Textiles & Fashion Careers I (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Technological Design (1), Clothing (.5-2), Business Principles & Practices (1), Economics (.5), Honors Commercial Art (.5), Housing & Home Furnishing (.5), Issues in American Society (.5), Marketing (1), Needlecraft (.5-1), Art II: 2 & 3 D Art (.5-1), Psychology I or Honors Psychology I (1), Public Speaking (.5), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	Pending Art Institute of York Fashion Marketing			

## COMPLETER: *Video Production*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b> (4 minimum credits) (# choose 1 credit from these)			# Graphic Communications (1) #Honors Commercial Art (1) #Script Writing & Video Production (1)	Video Production (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Art II: 2 & 3 D Art (.5-1), Journalistic Writing (.5), Psychology I or Honors Psychology I (1), Business Principles & Practices (1), Drama I, II, II (.5-1.5), Technological Design (1), Marketing (1), Public Speaking (.5), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	4 articulated credits Art Institute of Washington Digital Media Production			

# MAJORS

**CAREER MAJOR: *Drama***

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Technical Theatre I (.5) Drama II (.5) Creative Writing (.5) Public Speaking (.5) Survey of Musical Style (.5)	Speech & Debate (5) Drama III (.5) Psych. I or Honors Psychology I (1) Business Principles & Practices (1)	Ancient & Medieval History (.5) Honors Humanities (.5) Shakespeare (.5) Script Writing & Video Production (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Drama I (.5), AP Psychology (1), Applied Dance (.5-1), Clothing (.5), Dance I (.5-1), Music Elective (.5-1), Internship (.5-1)			
8 credits possible per year				

**CAREER MAJOR: *Graphic Communications***

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Graphic Communications (1)	2 & 3 D Art (.5-1) Technological Design (1) Journalistic Writing (.5) Script Writing & Video Production (1)	Honors Digital Design in Photography (1) Honors Commercial Art (1) Yearbook Production (1) Psychology I or Honors Psychology (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Psychology (1), Business Principles & Practices (1), Business Communication & Keyboarding (1), Honors Studio Art (.5-1), Marketing (1), Newspaper Production (.5-1), Print Production (3), Sociology (.5), Video Production (3), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Print Production, Video Production, Drafting			

## CAREER MAJOR: *Humanities & Classical Studies*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Mystery & Detective (.5) Mythology (.5) Honors 20 <sup>th</sup> Century Novel (.5)	AP Lang (1), Pop Culture & Composition (.5) Honors Latin III – Prose (1) Music History & Literature (.5-1)	Ancient & Medieval History (.5) AP Lit (1) Honors Humanities (.5) AP Latin Vergil (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Latin I (1), Business Communications & Keyboarding (1), Art I (.5-1), Drama I, II, III (.5-1.5), Survey of Musical Style (.5), Shakespeare (.5), Internship (.5-1)			
8 credits possible per year				

## CAREER MAJOR: *Industrial & Product Design*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Graphic Communications (1)	Advanced Design Applications (1) Technological Issues & Impacts (1)	Technological Design (1) Art II: 2 & 3 D Art (.5-1) Honors Digital Design in Photography (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), AP Physics (1), Landscaping (.5), Science Research I or Honors Science Research I (1), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Drafting, Engineering, Manufacturing and Machine Technologies			

## CAREER MAJOR: *Music Performance*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Instrumental OR Choral Elective (1-4) Survey of Musical Style (.5) Music History & Literature (.5-1)	Business Principles & Practices (1) Chorus, Honors Chorus (.5-1) Band (1) Ensemble (.5-1) Stage Band, Honors Jazz Ensemble (1)	Honors Music Theory, AP Music Theory (.5-1) Vocal Ensemble, Hon. Vocal Ensemble (.5-1) Orchestra, Honors Orchestra (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), Band Front (.5), Dance I (.5-1), Drama I, II, III (.5 ea.), Exploring Music (1), Script Writing & Video Production (1), Shakespeare (.5), Electronic Music (.5-1), Internship (.5-1)			
<b>8 credits possible per year</b>				

## CAREER MAJOR: *Visual Fine Arts*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Art II: 2 & 3 D Art (.5-1) Graphic Communications (1)	Business Principles & Practices (1) Honors Commercial Art (1) Psychology I or Honors Psychology I (1) Honors Digital Design in Photography (1)	Applied Art (.5-1) Honors Studio Art, AP Studio Art (.5-1) Honors Humanities (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Psychology (1), Flower Design (.5-1), Honors Ceramics (.5-1), Honors Drawing I (.5), Honors Mixed Media (.5-1), Honors Painting (.5), Needlecraft (.5-1), Advanced Design Applications (1), Technological Design (1), Internship (.5-1)			
<b>8 credits possible per year</b>				
<b>Related Completers:</b>	Print Production, Video Production			



## What type of work is involved in the *Business Contact* cluster?

- Initiating and carrying out sales campaigns.
- Using mathematical concepts to design financial and economic systems.
- Dealing with all kinds of people from civic leaders to the general public.

## What are *Business Contact* Pathways?

- Marketing and Sales
- Management and Planning

## What should you think about when considering a career in the *Business Contact* cluster?

### Do You . . . .

- ❖ like working with facts, numbers, and data?
- ❖ like contact with all kinds of people?
- ❖ speak and write clearly and accurately?
- ❖ work independently?
- ❖ like making decisions?
- ❖ like initiating and carrying out projects?
- ❖ care about people, their needs and welfare?

**If you answered YES to most of these questions, a career in the *Business Contact* cluster may be for you!**

**For more details, read on...**

# COMPLETERS

**COMPLETER: *Marketing***

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1) Business Communications & Keyboarding (1)	World Language (1)		
<b>Completer Program Requirements</b>		Business Principles and Practices (1) Honors Financial Management Using Software Applications (1)	Marketing (1)	Advanced Marketing (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Probability & Statistics (1), Accounting I, II (1-2), Business Law (1), Graphic Communications (1), Issues in American Society (.5), Office Systems Management (1), Political Science (.5), Public Speaking (.5), Sociology (.5), World Geography (.5), Technological Issues & Impacts (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	9 credits Community College of Baltimore County, Catonsville Business Management – Marketing			
<b>End of Program Test:</b> <b>Industry:</b> <b>Taken:</b>	Principles of Marketing College Board – CLEP End of Advanced Marketing			

# MAJORS

## CAREER MAJOR: *Advertising*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Graphic Communications (1)	Marketing (1) Honors Commercial Art (1) Public Speaking (.5) Creative Writing (.5)	Psychology I or Honors Psychology I (1) Script Writing & Video Production (1) Sociology (.5) Desktop Publishing (1) Economics (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Art II: 2 & 3 D Art (.5), Adv. Marketing (1), AP Language & Composition (1), Business Law (1), Business Principles & Practices (1), Journalistic Writing (.5), Newspaper Production (.5-1), Honors Financial Management Using Software Applications (1), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Marketing, Print Production, Video Production			

## CAREER MAJOR: *Hospitality & Tourism*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Business Principles & Practices (1)	Honors World Language III (1) Marketing (1) Economics (.5)	World Geography (.5) Sociology (.5) Psychology I OR Honors Psychology I (1) Public Speaking (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Accounting I (1), Advanced Marketing (1), AP Psychology (1), Creative Writing (.5), Honors or AP World Language IV (1), Honors Financial Management Using Software Applications (1), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Culinary Arts, Business Administration & Management			

## CAREER MAJOR: *International Business*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Public Speaking (.5) Business Principles & Practices (1)	Honors World Language III (1) Accounting I (1) Business law (1) Sociology (.5) Psychology I or Honors Psychology I (1) Economics (.5)	Honors or AP World Language IV (1) World Geography (.5) Marketing (1) AP Macroeconomics (1) (2) AP Language and Composition (1) AP Literature and Composition (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), Accounting II (1), Adv. Marketing (1), AP Psychology (1), AP Probability & Statistics (1), Issues in American Society (.5), Honors Financial Management Using Software Applications (1), Internship (.5-1)			
8 credits possible per year				

## CAREER MAJOR: *Mass Communications*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Drama I (.5)	Journalistic Writing (.5) Drama II (.5) Public Speaking (.5) Creative Writing (.5) Script Writing & Video Production (1) Honors World Language III (1)	Psychology I or Honors Psychology I(1) Honors Financial Management Using Software Applications (1) Business Law (1) Honors or AP World Language IV (1) AP Language and Composition (1) AP Literature and Composition (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Graphic Communications (1), Popular Culture and Composition (.5), Honors Film and Literature (.5), Business Communications & Keyboarding (1), AP Psychology (1), Business Principles & Practices (1), Economics (.5), Marketing (1), Music Elective (.5-1), Sociology (15), Speech & Debate (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Print Production, Video Production			

## CAREER MAJOR: *Public Relations*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Graphic Communications (1)	Public Speaking (.5) Marketing (1) Business Law (1) Honors World Language III (1)	Economics (.5) Sociology (.5) Adv. Marketing (1) Creative Writing (.5) Honors or AP World Language IV (1) AP Language and Composition (1) AP Literature and Composition (1) Popular Culture Language and Composition (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), Honors Commercial Art (1), AP Probability & Statistics (1), AP Psychology (1), Desktop Publishing (.5), Music Elective (.5-1), Honors Financial Management Using Software Applications (1), Internship (.5-1), Art II:2 & 3 D Art (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Marketing			



## What type of work is involved in the *Business Operations* cluster?

- Recording, posting, and filing of business records.
- Organization, accuracy, neatness, and attention to detail.
- Office work and contact with customers.
- Application of math and business concepts.

## What are *Business Operations* Pathways?

- Records and Communication
- Financial Transactions
- Storage and Dispatching
- Business Machine and Computer Operation

## What should you think about when considering a career in the *Business Operations* cluster?

### Do You . . .

- ❖ prefer well ordered environments?
- ❖ like systematic verbal and numerical activities?
- ❖ enjoy working with tools, machines, and equipment?
- ❖ like a predictable work setting?
- ❖ prefer to work along?
- ❖ perform work tasks to meet standards of accuracy?
- ❖ enjoy using math skills?
- ❖ like well-defined tasks?

**If you answered YES to most of these questions, a career in *Business Operations* cluster may be for you!**

**For more details, read on...**

# COMPLETERS

## COMPLETER: *Accounting*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>		Business Principles & Practices (1) Honors Financial Mgmt. Using Software Applications (1)	Honors Accounting I (1)	Accounting II (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Macroeconomics (1), Business Law (1), Desktop Publishing (1), Economics (.5), Honors Calculus (1), AP Calculus AB (1), AP Calculus BC (1), Honors Finance Academy I (2), Office Systems Management (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added: From? Program:</b>	3 Transcribed Credits Carroll Community College Accounting			
<b>End of Program Test: Industry: Taken:</b>	Accounting 101 Final Exam Carroll Community College At the end of Accounting II			

## COMPLETER: *Administrative Services*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	Health (.5)	PE (1)		
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>	Prerequisite: Business Communications & Keyboarding (1)	Business Principles & Practices (1)	Honors Financial Management Using Software Applications (1)	Office Systems Management (1) Advanced Software Applications (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Accounting I (1), Business Law (1), Desktop Publishing (1), Marketing (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added: From: Program:</b>	Up to 27 Articulated credits Carroll Community College Office Technology			
<b>End of Program Test: Industry: Taken:</b>	Microsoft Office Specialist Word or Excel Exam Microsoft At the end of Advanced Software Applications			

## COMPLETER: *Business Administration & Management*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
	Business Communications & Keyboarding (1)			
<b>Completer Program Requirements</b>		Business Principles & Practices (1) Honors Financial Management Using Software Applications (1)	Honors Accounting I (1)	Honors E-Commerce and Entrepreneurship (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Probability & Statistics (1), Accounting II (1), AP Psychology (1), Business Law (1), Honors Calculus, AP Calculus AB, AP Calculus BC (1), Issues in American Society (.5), Psychology I or Honors Psychology I (1), Sociology (.5), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	3 Articulated credits			
<b>From:</b>	Community College of Baltimore County, Catonsville, Essex or Dundalk			
<b>Program:</b>	Business Management			
<b>End of Program Test:</b>	Microsoft Office Specialist, Specialist Excel Exam OR CLEP Principles of Management Exam			
<b>Industry:</b>	Microsoft College Board - CLEP			
<b>Taken:</b>	At the end of Honors E-Commerce and Entrepreneurship			

## COMPLETER: *Computer Technology*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Honors Computer Technology I (3)	AP Computer Technology II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Graphic Communications (1), Script Writing and Video Production (1), Business Communications & Keyboarding (1), Honors Financial Management Using Software Applications (1), Math Elective Beyond Alg. II/Data Analysis (.5-1), Accounting I, II (1-2), Business Law (1), Business Principles & Practices (1), AP Prob. & Statistics (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	Up to 12 Articulated credits		10 Articulated credits	
<b>From:</b>	Carroll Community College		Community College of Baltimore County, Catonsville, Essex, or Dundalk	
<b>Program:</b>	Computer Information Systems		Information Technology	
<b>End of Program Test:</b>	Advanced Placement Computer Science A Exam			
<b>Industry:</b>	College Board			
<b>Taken:</b>	Spring after AP Computer Technology II			

## COMPLETER: *Financial Services/National Academy of Finance Endorsement*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
	Business Communications & Keyboarding (1)			
<b>Completer Program Requirements</b>		Prerequisite: Honors Financial Mgmt. Using Software Applications (1)	Honors Accounting I (1) Honors Finance Academy I (2)	Accounting II (1) Honors Finance Academy II (1) Honors Academy of Internship (1)
<b>Additional Requirements for NAF Endorsement (8 credits)</b>	Freshman Seminar (.5) (Strongly encouraged by NAF)			Concurrent Enrollment in finance course (.5) Additional Internship-Internship combined with above (1); paid
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Principles & Practices (1), Business Law (1), Economics (.5), Office Systems Management (1), Honors E-Commerce & Entrepreneurship (1)			
8 credits possible per year				
<b>Value Added: From: Program:</b>	3 Transcribed credits via Financial Services completer; 6 total Transcribed credits via Academy of Finance Carroll Community College Accounting			

# MAJORS

## CAREER MAJOR: *Actuarial Science*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Honors Financial Management Using Software Applications (1)	Marketing (1) Accounting I (1) Economics (.5)	Business Law (1) AP Prob. & Stats. (1) Math Elective beyond Alg. II/Data Analysis (.5-1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Principles & Practices (1), AP Macroeconomics (1), Accounting II (1), Adv. Marketing (1), Trig & Pre-Calc. or Hon. Trig & Pre-Calc (1), Psychology I or Honors Psychology I (1), Sociology (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Accounting			

## CAREER MAJOR: *Human Resources Management*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Public Speaking (.5)	Marketing (1) Honors Accounting I (1) Psychology I or Honors Psychology I (1) Business Law (1)	Issues in American Society (.5) AP Probability & Stat. (1) Sociology (.5) AP Psychology (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), Business Principles & Practices (1), Desktop Publishing (.5), Economics (.5), Honors Financial Management Using Software Applications (1), Internship (.5-1)			
8 credits possible per year				

## CAREER MAJOR: *Information Systems Management*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)			Business Principles & Practices (1) Honors Financial Management Using Software Applications (1) Economics (.5)	AP Prob. & Stats. (1) Accounting I (1) Math Elective beyond Alg. II/Data Analysis (1) Adv. Software Applications (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Technological Issues and Impacts (1), Business Principles & Practices (1), AP Macroeconomics (1), Accounting II (1), Adv. Marketing (1), Trig & Pre-Calc. or Hon. Trig & Pre-Calc (1), Psychology I or Honors Psychology I (1), Sociology (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Accounting, Computer Technology, Cisco Networking Academy			

## CAREER MAJOR: *Operations Management*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Business Principles & Practices (1)	Marketing (1)	Honors Accounting I (1) Honors Financial Management Using Software Applications (1) Business Law (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Advanced Marketing (1), AP Psychology (1), Economics (.5), Psychology I or Honors Psychology I (1), Sociology (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Building Maintenance			

## What type of work is involved in the *Science* cluster?

- Planning and conducting research.
- Collecting and applying systematic accumulation of knowledge in related branches of mathematics, life, physical and social science.
- Observing and classifying facts in laboratory research.
- Applying information in the fields of mathematics, medicine, life, physical and social sciences.
- Studying the environment, world cultures, and people.

## What are *Science Pathways*?

- Engineering & Other Applied Technologies
- Medical Specialties and Technologies
- Natural Sciences and Mathematics
- Social Sciences

## What should you think about when considering a career in the *Science* cluster?

### Do You . . .

- ❖ have an aptitude in science, math, or social studies?
- ❖ have a curiosity about how things work?
- ❖ have the ability to gather and analyze data to solve problems?
- ❖ have an aptitude in working with computers?
- ❖ have a desire to help people resolve medical and health related concerns?
- ❖ have a concern for physical and mental fitness?
- ❖ have an interest in politics, history, economics, or geography?

**If you answered YES to most of these questions, a career in the *Science* cluster may be fore you!**

**For more details, read on...**

# COMPLETERS

## COMPLETER: *Academy of Health Professionals*

**CREDITS: 4 to 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	Chemistry II (1)
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Option 1</b> <b>Surgical Technology or Health Care Technician</b> Completer Program Requirements  6 credits				Honors Foundations of Medicine and Health Science (1) Honors Structure and Functions of the Human Body (1) CNA – Theory and Clinical (1)  Honors Surgical Technology (includes clinical) (3) OR Honors Health Care Technician (includes clinical) (3)
<b>Option 2</b> <b>Certified Nursing Assistant (C.N.A.)</b> Completer Program Requirements  4- 6 credits				Honors Foundations of Medicine and Health Science (1) Honors Structure and Functions of the Human Body (1) CNA – Theory and Clinical (1)  Honors Academy of Health Professions Internship (1-3) OR Dual Enrollment #(1)
<b>Option 3</b> <b>Physical Rehabilitation (Physical Therapy, Occupational Therapy, Speech Pathology, Athletic Training, Sports Medicine)</b> Completer Program Requirements  5 to 6 credits				Honors Foundations of Medicine and Health Science (1) Honors Structure and Functions of the Human Body (1) Physical Rehabilitation: Theory and Clinical (1) Honors Academy of Health Professions Internship (1-2) AND Dual Enrollment # (1)
<b>Option 4</b> <b>Medical Specialty (Pharmacy Tech., Dental Asst., Optometric Tech.)</b>				Honors Foundations of Medicine and Health Science (1) Honors Structure and Functions of the Human Body (1) Specialized Medical Option* (1)  *Offered at Carroll Community College Academy of Health

Grade →	9	10	11	12
				Professional Internship (1-3) OR Dual Enrollment# (1)
<b>Program Specific Requirements</b>	# Dual Enrollment is required in a credit bearing math or science course that is part of a related health careers sequence.			
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Technological Issues and Impacts (1), Business Communications and Keyboarding (1), Health II (.5), Human Anatomy & Physiology or Honors Human Anatomy & Physiology (1), Math Elective beyond Alg. II/DA (.5-1), AP Biology, AP Chemistry (1), AP Psychology (1), Biology II (1), Psychology I or Honors Psychology I (1), Public Speaking (.5), Sociology (.5), Internship 3 (.5-2)			
8 credits possible per year				
<b>Value Added:</b>	Receives required C.N.A. Certification hours			
<b>End of Program Test: Industry: Taken:</b>	Certified Nursing Assistant Exam / Geriatric Nursing Assistant Exam or Determined by coursework Maryland Board of Nursing or Carroll Community College During CNA – Theory and Clinical or During Specialized Medical Option			

## COMPLETER: *Animal & Veterinary Science*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>	Intro to Agriculture, Food, & Natural Resources (1)	Animal Care & Management (1)	Veterinary Science (1)	Ag Coop/Internship (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Equine Science (.5), Technological Issues and Impacts (1), Math Elective beyond Alg./DA – Course 3 (.5-1), Biology II (1), AP Biology (1), AP Chemistry (1), Psychology I or Honors Psychology I (1), Public Speaking (.5), Sociology (.5)			
8 credits possible per year				
<b>Value Added: From: Program:</b>	2 Articulated credits The Community College of Baltimore County, Essex Veterinary Technology			

## COMPLETER: *Biomedical Sciences – Project Lead the Way Endorsement*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	Chemistry II (1)
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Honors Principles of Biomed. Sciences (1) Honors Human Body Systems (1)	Honors Medical Interventions (1) Honors Biomedical Research (1)
<b>Program Specific Requirements</b>	A college preparatory math and science course is required each year of high school. See chart above.			
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied) 8 credits possible per year	Human Anatomy & Physiology or Honor Human Anatomy & Physiology (1), Science Research I or Honors Science Research I (1), AP Biology (1), AP Chemistry (1), Technological Issues & Impacts (1), Health II (.5), Issues in American Society (.5), Veterinary Science (1), Probability & Statistics or AP Probability & Statistics (1)			
<b>Value Added: From:</b>	4 Transcribed credits Stevenson University			
<b>End of Program Test: Industry: Taken:</b>	To Be Determined Project Lead the Way / Stevenson University To Be Determined			

## COMPLETER: *Geographic Information Systems & Technology* CREDITS: 4

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics 91)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b> (4 minimum credits)			Foundations of Homeland Security and Emergency Preparedness (1) S.T.A.R.S. Course 1 & 2 (1)	S.T.A.R.S. Course 3 and 4 (1) Internship/Capstone Experience (1)
Career Specific Electives (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), AP Language & Composition (1), Honors World Language III (1), Science Research I or Honors Science Research I (1), World Geography (.5), AP Probability & Statistics (1), AP Environmental Studies (1), Technological Issues & Impacts (1), Issues in American Society (.5), AP Government (1)			
8 credits possible per year				
Value Added: From: Program:	TBD			
End of Program Test:	S.T.A.R.S. Entry-Level Technician Exam			
Industry:	GIS (Geographic Information Systems)			
Taken:	TBA			

## COMPLETER: *Horticulture* CREDITS: 4

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b> #Choose .5 credit from these courses)	Intro to Agriculture, Food, & Natural Resources (1)	Agricultural Mechanical Technology (1)	#Landscaping (.5) Or #Flower Design (.5-1)	Horticulture (1) Ag Coop/Internship (.5)
Career Specific Electives (may be taken any year offered after prerequisites have been satisfied)	Honors Financial Management Using Software Applications (1), Math elective beyond Alg. II/DA (.5-1), Business Principles & Practices (1), Marketing (1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	6 Articulated credits Community College of Baltimore County, Dundalk Horticulture			

## COMPLETER: *Wildlife & Natural Resources*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>	Intro to Agriculture, Food & Natural Resources (1)	Agricultural Mechanical Technology (1)	Wildlife Management (.5)	Environmental Conservation (1) Ag Coop/Internship (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Honors Financial Management Using Software Applications (1), Math Elective Beyond Alg. II/Data Analysis (.5-1), AP Biology (1), AP Prob. & Stats. (1), Technological Issues & Impacts (1), Business Principles & Practices (1), Ecology (.5), Issues in American Society (.5), Science Research I or Honors Science Research I (1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	2 Articulated credits Allegany College of Maryland Forest Technology			

# MAJORS

## CAREER MAJOR: *Computer Science & Systems Analysis*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)			Honors Financial Management Using Software Applications (1) AP Probability & Stats. Math elective beyond Alg. II/DA (.5-1)	Science Research I or Honors Science Research I (1) Trig & Pre-Calc. or Hon. Trig & Pre-Calc. (1) Adv. Software Applic. (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Honors Alg./DA – Course 3 (1), Business Principles (1), AP Calculus AB (1), AP Calculus BC (1), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Computer Technology			

## CAREER MAJOR: *Economics*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Business Principles & Practices (1)	Marketing (1) Accounting I (1) Issues In American Society (.5) Sociology (.5) Economics (.5)	Business Law (1) AP Probability & Statistics (1) AP Macroeconomics (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Accounting II (1), Honors Financial Management Using Software Applications (1), Advanced Marketing (1), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Accounting			

## CAREER MAJOR: *Environmental Health*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Health II (.5) Issues in American Society (.5)	Ecology (1) Public Speaking (.5) Sociology (.5) Biology II or Honors Biology II (1)	Chemistry II or Honors Chemistry II (1) Business Law (1) AP Environmental Studies (1) Science Research I or Honors Science Research I (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Biology (1), AP Chemistry (1), AP Psychology (1), Environmental Conservation (1), Psychology I or Honors Psychology I (1), Science Research II or Honors Science Research II (1), Technological Issues & Impacts (1), World Geography (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Academy of Health Professions, Emergency Service Technology			

## CAREER MAJOR: *Food & Nutrition Science*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
		Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Issues in American Society (.5)	Adv. Foods (1) Food & Nutrition Science (1) Human Anatomy & Physiology or Honors Human Anatomy & Physiology (1) Health II (5)	Chemistry II or Honors Chemistry II (1) Biology II or AP Biology (1) Science Research I or Honors Science Research I (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Introduction to Agriculture, Food, & Natural Resources (1), AP Chemistry (1), AP Probability & Stat. (1), Psychology I or Honors Psychology I (1), Sociology (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Culinary Arts, Food Service & Hospitality Management (ProStart)			

## CAREER MAJOR: *History*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Ancient & Medieval History (.5) World Geography (.5) Honors 20 <sup>th</sup> Century Novel (.5)	American Revolution & the Civil War (.5) Issues in American Society (.5) Mythology (.5)	AP European History (1) Shakespeare (.5) International Studies (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), Art I (.5-1), Honors Humanities (.5), Music History & Literature (.5-1), Sociology (.5), Survey of Musical Style (.5), Internship (.5-1)			
8 credits possible per year				

## CAREER MAJOR: *International Studies*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Public Speaking (.5)	Honors World Language III (1) Sociology (.5) World Geography (.5) International Studies (.5) Economics (.5)	Honors or AP World Language IV (1) AP Macroeconomics (1) Psychology I or Honors Psychology I (1) Political Science (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), AP Probability & Statistics (1), AP European History (1), AP Language & Composition (1), AP Literature & Composition (1), AP Psychology (1), Issues in American Society (.5), Marketing (1), Speech & Debate (.5), Internship (.5-1)			
8 credits possible per year				

## CAREER MAJOR: *Life Science*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Horticulture (1)	Biology II (1) Ecology (1) Chemistry II or Honors Chemistry II (1) Health II (.5) Environmental Conservation (1) AP Biology (1) AP Environmental Studies (1)	Science Research I or Honors Science Research I (1) Human Anatomy & Physiology or Honors Human Anatomy & Physiology (1) Math elective beyond Alg. II/DA (.5-1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Veterinary Science (1), AP Probability & Stat. (1), Honors Calculus (1), AP Calculus AB (1), Trig & Pre-Calc. or Honors Trig. & Pre-Calc (1), AP Physics (1), Wildlife Management (1.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Academy of Health Professions, Animal & Veterinary Science, Horticulture, Wildlife & Natural Resources			

## CAREER MAJOR: *Mathematics*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)			Alg. II/DA (1) AP Probability & Stats. (1) Trig. & Pre-Calc. or Hon. Trig. & Pre-Calc. (1)	Honors Calculus, AP Calculus AB, AP Calculus BC (1) Science Research I or Honors Science Research I (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Graphic Communications (1), Chemistry II or Honors Chemistry II (1), Advanced Design Applications (1), Technological Design (1), Honors Principles of Engineering (1), Internship (.5)			
8 credits possible per year				
<b>Related Completers:</b>	Computer Technology			

## CAREER MAJOR: *Physical Science*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)			Advanced Design Applications (1) Chemistry II or Honors Chemistry II (1) AP Chemistry (1) AP Physics (1)	Technological Design (1) Science Research I or Honors Science Research I (1) Math elective beyond Alg. II/DA (.5-1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Probability & Stat. (1), Honors Calculus (1), AP Calculus AB (1), AP Calculus BC (1), Trigonometry & Pre-Calculus or Honors Trigonometry & Pre-Calculus (1), World Geography (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers:</b>	Academy of Health Professions, Animal & Veterinary Science, Horticulture, Wildlife & Natural Resources			

## CAREER MAJOR: *Social Science*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		World Geography (.5) Issues in American Society (.5)	Psychology I or Honors Psychology I (1) Political Science (.5) Sociology (.5) Public Speaking (.5) Economics (.5) Honors World Language III (1)	AP Psychology (1) AP Macroeconomics (1) Speech & Debate (.5) Honors Humanities (.5) Honors or AP World Language IV (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), History Elective (.5-1), Child & Adolescent Development (1), Technological Issues & Impacts (1), Music History & Literature (.5-1) Peer Facilitating (.5), Personal Relations & Effective Parenting (1), Popular Culture and Composition(.5), Internship (.5-1)			
8 credits possible per year				

## **What type of work is involved in the *Social Services* cluster?**

- Includes positions of high responsibility in caring for the personal needs and welfare of others in fields of social service, health, and education.
- Involves providing services to persons and catering to the tastes, desires, and welfare of others in fields of personal service.

## **What are *Social Services* Pathways?**

- General Health Care
- Education and Related Services
- Social and Government Services
- Personal/Customer Service

## **What should you think about when considering a career in the *Social Services* Cluster?**

### **Do You . . . . .**

- ❖ get along with a wide variety of people?
- ❖ enjoy sharing ideas with others?
- ❖ enjoy helping others learn new things or acquire information?
- ❖ enjoy reading about or studying how society works and the interactions of individuals or groups of people?
- ❖ enjoy providing service to other people?
- ❖ seeing to their comfort, or enhancing their appearance?

**If you answered YES to most of these questions, a career in the *Social Services* cluster may be for you!**

# For more details, read on...



## COMPLETER: *Cosmetology*

**CREDITS: 9**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1) Biology (1)	Human Anatomy & Physiology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Principles & Practices of Cosmetology (3)	Adv. Cosmetology Theory & Application (3) Mastery of Cosmetology (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Principles and Practices (1), Public Speaking (.5)			
8 credits possible per year				
<b>Value Added:</b>	1,000 hour letter/eligibility to participate in supervised work based experience in a salon setting			
<b>End of Program Test:</b>	State Board Cosmetology Exam			
<b>Industry:</b>	Maryland State Board of Cosmetology			
<b>Taken:</b>	At the end of Mastery of Cosmetology			

## COMPLETER: *Culinary Arts*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	French I (1)	French II (1)		
<b>Completer Program Requirements</b>			Culinary Arts I: Culinary Basics (3)	Culinary Arts II: Professional Baking & Pastry (3) or Culinary Arts II: Professional Cooking

				(3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Foods (1), Science Elective (.5-1), Accounting I, II (1 ea.), Business Law (1), Business Principles & Practices (1), Business Communications & Keyboarding (1), Economics (.5), Food & Nutrition Science (1), Health II (.5), Human Anatomy & Physiology or Honors Human Anatomy & Physiology (1), Psychology I or Honors Psychology I (1), Sociology (.5), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	Up to 10 Articulated Credits Howard Community College Hospitality Management	American Culinary Federation (ACF) Certification	Up to 7 Articulated Credits Baltimore International College Culinary Arts	
<b>End of Program Test:</b> <b>Industry:</b> <b>Taken:</b>	ACF – Culinary Arts, Cook Level 2 American Culinary Federation	ACF – Retail Commercial Baking American Culinary Federation At the end of Culinary Arts II: Professional Cooking		

### COMPLETER: *Early Childhood Education*

**CREDITS: 5**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>		Honors Child & Adolescent Development (1) Child Development Laboratory (1)	Advanced Child Development Laboratory (1)	Early Childhood Education Seminar & Internship (2)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), Psychology I or Honors Psychology I (1), Sociology (.5), Art Elective (1), AP Psychology (1), Business Principles & Practices (1), Drama I, II, III (.5-1.5), Health II (.5), Music Elective (.5), Peer Facilitating (.5), Personal Relationships & Effective Parenting (1), Public Speaking (.5)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	Receives required State certification hours	6 Articulated credits Carroll Community College Early Childhood Education	3-6 Articulated credits Stevenson University Elementary Education or Early Childhood	
<b>End of Program Test:</b> <b>Industry:</b> <b>Taken:</b>	ParaPro Exam Educational Testing Service At the end of Seminar & Internship			

### COMPLETER: *Education – Middle & High School / Teacher Academy of MD*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>		Honors Child & Adolescent Development (1)	Honors Teaching as a Profession (1) Foundations of Curriculum &	Education Academy Internship (1)

			Instruction (1)	
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Students should focus elective choices in the content area they aspire to teach. Business Communications and Keyboarding (1), Psychology I or Honors Psychology I (1), AP Psychology (1), Drama I, II, III (.5-1.5), Peer Facilitating (.5), Personal Relationships & Effective Parenting (1), Public Speaking (.5)			
8 credits possible per year				
<b>Value Added:</b>	3 Articulated credits	4 Articulated Credits	3 Transcribed Credits	
<b>From:</b>	Community College of Baltimore County	Carrroll Community College	Towson University	
<b>Program:</b>	Teacher Education	Teacher Education Program	Teacher Education	
<b>End of Program Test:</b>	ParaPro Exam			
<b>Industry:</b>	Educational Testing Service			
<b>Taken:</b>	Foundations of Curriculum & Instruction			

### COMPLETER: *Emergency Service Technology*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>				Emergency Service Technology (4)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Technological Issues and Impacts (1), Business Communications & Keyboarding (1), Health II (.5), Human Anatomy & Physiology or Honors Human Anatomy & Physiology (1), AP Biology (1), Biology II (1), AP Psychology (1), Issues in American Society (.5), Psychology I or Honors Psychology (1)Public Speaking (.5), Sociology (.5), Internship (.5)			
8 credits possible per year				
<b>Value Added:</b>	Approved by ACE/PONSI for college equivalent credit		5 Articulated Credits	
<b>From:</b>			Community College of Baltimore County, Catonsville	
<b>Program:</b>			Emergency Medical Technology	
<b>End of Program Test:</b>	EMT-B, HAZMAT, Firefighter I, Rescue Technology, & Truck Company Operations			
<b>Industry:</b>	Maryland Fire & Rescue Institute			
<b>Taken:</b>	At the completion of each section during Emergency Services Technology			

### COMPLETER: *Food Service & Hospitality Management (ProStart)* CREDITS: 4

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>		Prerequisite: Introduction to Foods (1)	Business Principles and Practices (1) Food Service Professional (1)	Food Service Professional II (1) Internship (1)

<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	French I (1), French II (1), Science Elective (.5-1), Accounting I, II (1 ea.), Business Law (1), Business Principles & Practices (1), Business Communications & Keyboarding (1), Economics (.5), Health II (.5), Human Anatomy & Physiology or Honors Human Anatomy & Physiology (1), Psychology I or Honors Psychology I (1), Sociology (.5),	
8 credits possible per year		
<b>Value Added: From: Program:</b>	ProStart Affiliated Colleges	6-7 articulated credits Paul Smith's College Culinary Arts and Service Management
<b>End of Program Test: Industry: Taken:</b>	ProStart and ServSafe Exams ProStart and ServSafe At the end of Food Service Professional I and II	



### CAREER MAJOR: *Family & Consumer Studies*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Child Development Laboratory (1)	Adv. Foods (1) Food & Nutrition Science (1) Housing & Home Furnishings (.5) Economics (.5)	Sociology (.5) Psychology I or Honors Psychology I (1) Personal Relationships & Effective Parenting (1) A.P. Macroeconomics (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Child & Adolescent Development (1), Chemistry II or Honors Chemistry II (1), Adv. Child Dev. Laboratory (1), Art Elective (1), Clothing (.5-2), Flower Design (.5-1), Health II (.5), Advanced Design Applications (1), Technological Design (1), Issues in American Society (.5), Journalistic Writing (.5), Marketing (1), Music Elective (.5-1), Needlecraft (.5-1), Public Speaking (.5), Internship (.5-2)			
8 credits possible per year				
<b>Related Completers:</b>	Early Childhood Education, Culinary Arts, Floral Design, Textiles & Fashion Careers, Food Service & Hospitality Management (ProStart)			

### CAREER MAJOR: *Law & Legal Services*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	

Grade →	9	10	11	12
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Issues in American Society (.5)	Public Speaking (.5) Sociology (.5) World Geography (.5) Political Science (.5) Psychology I or Honors Psychology I (1) Economics (.5) AP Government (1)	Speech and Debate (.5) AP Macroeconomics (1) AP Psychology (1) AP Probability & Stat. (1) Business Law (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), AP Language & Composition (1), Honors World Language III (1), Peer Facilitating (.5), Science Research I or Honors Science Research I (1), World Geography (.5), Internship (.5-1)			
8 credits possible per year				

## CAREER MAJOR: *Library & Media*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Business Communications & Keyboarding (1) Honors Financial Management Using Software Applications (1)	Graphic Communications (1) Desktop Publishing (1) Issues in American Society (.5) Script Writing & Video Production (1) Public Speaking (.5)	Newspaper Production (.5-1) Honors Humanities (.5) Honors Twentieth Century Novel (.5) Media Assistant (.5-1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Drama I, II, III (.5 ea.), Honors British Lit & Com. (1), Honors Survey of American lit and Comp. (1), Psychology I or Honors Psychology I (1) Internship (.5-1) , Journalistic Writing (.5),-Mythology (.5), Shakespeare (.5)			
8 credits possible per year				

## CAREER MAJOR: *Social Work*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Child & Adolescent Development (1)	Psychology I or Honors Psychology I (1) Political Science (.5) Sociology (.5)	AP Psychology (1) Peer Facilitating (.5) Personal Relations & Effective Parenting (1)

Grade →	9	10	11	12
			Public Speaking (.5) Leadership Dev. (.5) Honors World Language III (1)	Issues in American Society (.5) Honors or AP World Language IV (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Probability & Statistics (1), Child Development Laboratory (1), Advanced Child Development Laboratory (1), AP Language & Composition (1), Economics (.5), Health II (.5), American Sign Language (.5), Internship (.5-1)			
8 credits possible per year				

## CAREER MAJOR: *Sports & Recreation*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)			Health II (.5) Human Anatomy & Physiology or Honors Human Anatomy & Physiology (1) Personal Fitness (.5) Psychology I or Honors Psychology I (1) Weight Training (.5)	Biology II, AP Biology (1 ea.) Organization & Admin. In Physical Education (.5) Sociology (.5) Honors Financial Management Using Software Applications (1) Individual/Dual Sports (.5) Team Sports (.5)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	AP Probability & Statistics (1), Applied Dance (.5-1), Business Principles and Practices (1), Child & Adolescent Development (1), Dance I (.5-1), Gymnastics & Tumbling (.5), Marketing (1), Public Speaking (.5), Internship (.5-1)			
8 credits possible per year				
<b>Related Completers</b>	Academy of Health Professions			

## CAREER MAJOR: *Urban & Regional Planning*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	World Language (1)	World Language (1)		

Grade →	9	10	11	12
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
<b>Career Major</b> (4 minimum credits)		Issues in American Society (.5)	Technological Design (1) Advanced Design Applications (1) Ecology (1) Public Speaking (.5) Sociology (.5) World Geography (.5) Economics (.5)	Environmental Conservation (1) AP Probability & Statistics (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Business Communications & Keyboarding (1), AP Environmental Studies (1), AP Macroeconomics (1), Landscaping (.5), Political Science (.5), Psychology I or Honors Psychology I (1), Honors Financial Management Using Software Applications (1), Speech & Debate (.5), Technological Issues & Impacts (1), Art II: 2 & 3 D Art (.5-1), Internship (.5-1)			
8 credits possible per year				

## What type of work is involved in the *Technical* cluster?

- Responsibility for engineering and structural design in the manufacture, construction, and transportation of products or utilities.
- Working with one's hands in a skilled trade concerned with construction, manufacture, installation or repair of products.
- Applying problem solving abilities to design and execute solutions for today's technical challenges.
- The creation of systems that perform a useful task.

## What are *Technical Pathways*?

- Vehicle Operation and Repair
- Construction/Maintenance
- Agriculture & Natural Resources
- Crafts and Related Services
- Home/Business Equipment Repair
- Industrial Equipment Operation and Repair

## What should you think about when considering a career in the *Technical* cluster?

### Do You . . . .

- ❖ have an understanding of cause and effect?
- ❖ have problem solving and math skills?
- ❖ enjoy working with tools and equipment?
- ❖ perform work tasks to meet standards of accuracy?
- ❖ have mechanical ability?
- ❖ have manual dexterity and hand-eye coordination?
- ❖ have the ability to form mental images of objects or structures from drawings?

**If you answered YES to more of these questions, a career in the *Technical* cluster may be for you!**

**For more details, read on...**

# COMPLETERS

## COMPLETER: *Auto Service Technology*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Auto Service Technology I (3)	Auto Service Technology II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg. II/DA (.5-1), Science Elective (.5-1), Agricultural Mechanical Technology (1), Chemistry I or Honors Chemistry I (1), Business Communication & Keyboarding (1), Public Speaking (.5), Trigonometry & Pre-Calculus or Honors Trigonometry & Pre-Calculus (1), Technological Issues & Impacts (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	Up to 15 Articulated Credits	Up to 15 Articulated Credits	Up to 12 Articulated Credits	Up to 4 Articulated Credits
<b>From:</b>	Community College of Baltimore County, Catonsville	Penn College of Technology	University of Northwestern Ohio	Universal Technical Institute
<b>Program:</b>	Automotive Technology	Automotive Technology	Automotive Technology	Automotive Technology
<b>End of Program Test:</b>	NA3SA Exams in Brakes, Electrical/Electronic Systems, Engine Performance, and Suspension/Steering			
<b>Industry:</b>	National Automotive Student Skills Standards Assessment (NA3SA)			
<b>Taken:</b>	At the completion of each section during Auto Service Technology I & II			

## COMPLETER: *Building Maintenance*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language I	World Language I		
<b>Completer Program Requirements</b>			Advanced Design Applications (1) or Technological Design (1)	Building Maintenance I (4)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Agricultural Mechanical Technology (1), Math elective beyond Alg. II/D.A. (1), Internship (.5-1)			
8 credits possible per year				
<b>End of Program Test:</b>	NCCT Core Exam v2			
<b>Industry:</b>	National Center for Construction Education and Research (NCCER)			
<b>Taken:</b>	At the end of Building Maintenance I			

## COMPLETER: *Carpentry*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Carpentry I (3)	Carpentry II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Agricultural Mechanical Technology (1), Math elective beyond Alg. II/D.A. (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	Up to 1 year toward Apprenticeship Associated Builders & Contractors		6 Articulated Credits	
<b>From:</b>			Community College of Baltimore County, Catonsville	
<b>Program:</b>			Construction Technology	
<b>End of Program Test:</b>	NCCT Academic Carpentry Level I v2		NCCT Academic Core v2	
<b>Industry:</b>	National Center for Construction Education and Research (NCCER)		National Center for Construction Education and Research (NCCER)	
<b>Taken:</b>	At the end of Carpentry I		At the end of Carpentry II	

## COMPLETER: Cisco Networking Academy

**CREDITS: 5 - 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Option 1</b> Completer Program Requirements 6 credits			CCNA: Discovery I & II (3)	CCNA: Discovery III & IV (3) OR PC Hardware and Software (3)
<b>Option 2</b> Completer Program Requirements 5 credits			CCNA: Discovery I & II (3)	IT Internship (2) OR Dual Enrollment (2)
<b>Option 3</b> Completer Program Requirements 5 credits				PC Hardware and Software (3) IT Internship (2) OR Dual Enrollment (2)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Honors Financial Management Using Software Applications (1), Accounting I (1), Business Law (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b> <b>From:</b> <b>Program:</b>	Up to 16 Articulated Credits Community College of Baltimore County, Catonsville, Essex, or Dundalk Information Technology			
<b>End of Program Test:</b> <b>Industry:</b> <b>Taken:</b>	Cisco CCENT CCNA / CompTIA A+ certification CISCO / CompTIA At the end of CCNA Discovery / PC Hardware and Software			

## COMPLETER: *Collision Repair Technology*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Collision Repair Technology I (3)	Collision Repair Technology II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg. II/DA (.5-1), Accounting I (1), Business Principles & Practices (1), Business Communications & Keyboarding (1), Public Speaking (.5), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	15 Articulated Credits		Up to 16 Articulated Credits	
<b>From:</b>	Community College of Baltimore County, Catonsville		Penn College of Technology	
<b>Program:</b>	Automotive Collision Repair & Refinishing		Autobody/Collision Repair	
<b>End of Program Test:</b>	NA3SA Exam in Non-Structural Analysis and Damage Repair, Painting and Refinishing, and Structural Analysis and			
<b>Industry:</b>	Damage Repair			
<b>Taken:</b>	National Automotive Student Skills Standards Assessment (NA3SA)			
	At the end of Collision Repair Technology II			

## COMPLETER: *Drafting*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Drafting I (3)	Drafting II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg./DA – Course 3 (.5-1), Graphic Communications (1), Honors Commercial Art (.5), Honors Calculus (1), AP Calculus AB (1), AP Calculus BC (1), Art II: 2 & 3 D Art (.5-1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	3 Articulated Credits		9 Articulated Credits	
<b>From:</b>	Carroll Community College		Community College of Baltimore County, Catonsville	
<b>Program:</b>	Computer Aided Design		Computer Aided Drafting and Design	

## COMPLETER: *Electrical Construction*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Electrical Construction I (3)	Electrical Construction II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied) 8 credits possible per year	Advanced Design Applications (1), Technological Design (1), Alg./ DA Course 3 (1), Math Elective beyond Alg. II/DA (.5-1), Agricultural Mechanical Technology (1), Business Communications & Keyboarding (1), Public Speaking (.5), Internship (.5-1)			
<b>Value Added:</b>	Up to 1 year toward Apprenticeship Associated Builders & Contractors		6 Articulated Credits	
<b>From:</b>			Community College of Baltimore County, Catonsville	
<b>Program:</b>			Construction Technology	
<b>End of Program Test:</b>	NCCT Academic Core v2		NCCT Academic Electrical Level I v2	
<b>Industry:</b>	National Center for Construction Education and Research (NCCER)		National Center for Construction Education and Research (NCCER)	
<b>Taken:</b>	At the end of Electrical Construction I		At the end of Electrical Construction II	

## COMPLETER: *Engineering Technology - Project Lead the Way Endorsement*

**CREDITS: 4**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Honors Principles of Engineering (1) Intro to Engineering Design (1)	Computer Integrated Manufacturing (1) Digital Electronics (1) Honors Engineering Design & Development (1)
<b>Program Specific Requirements</b>	A college preparatory math and science course is required each year of high school. See chart above.			
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied) 8 credits possible per year	Math Electives: Alg./D.A. Course 3 (1), AP Probability & Statistics (1), AP Calculus AB, AP Calculus BC (1), Trig & Pre-Calculus or Honors Trig. & Pre-Calc (1), Science Electives: AP Physics (1), Science Research I, II (1 ea.) AP Chemistry (1), Advanced Technology Ed. Electives: Advanced Design Applications (1), Technological Design (1), Technological Issues & Impacts (1)			
<b>Value Added:</b>	16 Transcribed Credits		3 Articulated Credits	
<b>From:</b>	Rochester Institute of Technology		University of Maryland Baltimore	
<b>Program:</b>	Engineering		Engineering	
<b>End of Program Test:</b>	Rochester Institute of Technology Exams in Principles of Engineering, Introduction to Engineering Design, Digital Electronics, & Computer Integrated Manufacturing			
<b>Industry:</b>	Project Lead the Way (PLTW)			
<b>Taken:</b>	At the end of the designated course			

## COMPLETER: *Heating, Ventilation, Air Conditioning*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			HVAC I (3)	HVAC II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied) 8 credits possible per year	Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg. II/DA (.5-1), Business Communications & Keyboarding (1), Public Speaking (.5), Technological Issues & Impacts (1), Internship (.5-1)			
<b>Value Added: From: Program:</b>	6 Articulated Credits Community College of Baltimore County, Catonsville Construction Technology	6 Articulated Credits University of Northwestern Ohio Commercial HVAC & Refrigeration	Up to 1 year toward Apprenticeship Associate Builders and Contractors	
<b>End of Program Test: Industry: Taken:</b>	NCCT Academic Core v2 National Center for Construction Education and Research (NCCER) At the end of HVAC I		NCCT Academic HVAC National Center for Construction Education and Research (NCCER) At the end of HVAC II	

## COMPLETER: *Heavy Equipment & Truck Technology*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Heavy Equipment & Truck Technology I (3)	Heavy Equipment & Truck Technology II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied) 8 credits possible per year	Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg. II/DA (.5-1), Agricultural Mechanical Technology (1), Business Principles & Practices (1), Business Communications & Keyboarding (1), AP Physics (1), Public Speaking (.5), Technological Impacts & Issues (1), Internship (.5-1)			
<b>Value Added: From: Program:</b>	Up to 8 Articulated Credits Pennsylvania College of Technology Diesel Technology: Heavy Construction Equipment: Technician, Operator or CAT Emphasis; or Electric Power Generation Technology		Up to 12 Articulated Credits University of Northwestern Ohio Diesel Technology	Up to 4 Articulated credits Universal Technical Institute Automotive Technology
<b>End of Program Test: Industry: Taken:</b>	Diesel Engines and Electrical/Electronic Systems National Automotive Student Skills Standards Assessment (NA3SA) At the end of Heavy Equipment & Truck Technology II			

## COMPLETER: *Landscaping Design & Construction*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Option 1 Completer Program Requirements</b>			Landscaping Design I (3)	Landscaping Design II (3)
<b>Option 2 Completer Program Requirements</b>		Landscaping (.5)	Landscaping Design I & Construction I (3) OR II (3)	Internship (1)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Landscaping (.5), Accounting I (1), Business Principles & Practices (1), Horticulture (1), Intro to Agriculture, Food, and Natural Resources (1), Marketing (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	3 Articulated Credits			
<b>From:</b>	Community College of Baltimore County, Dundalk			
<b>Program:</b>	Horticulture, Landscape Design and Installation, Turf and Landscape Maintenance			

## COMPLETER: *Manufacturing & Machine Technologies*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Manufacturing & Machine Technologies I (3)	Manufacturing & Machine Technologies II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg. II/DA (.5-1), Business Communications & Keyboarding (1), Honors Calculus, AP Calculus AB, Adv. AP Calculus BC (1), Chemistry II (1), Issues in American Society (.5), Public Speaking (.5), Technological Issues & Impacts (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	17 Articulated Credits			
<b>From:</b>	Community College of Baltimore County, Catonsville			
<b>Program:</b>	Computer Automated Manufacturing and Industrial Technology			
<b>End of Program Test:</b>	Measurement, Materials, and Safety and Job Planning Bench Work and Layout			
<b>Industry:</b>	NIMS (National Institute for Metalworking Skills)			
<b>Taken:</b>	During Manufacturing and Machine Technologies I			

## COMPLETER: *Masonry*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Masonry I (3)	Masonry II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Accounting I (1), Agricultural Mechanical Technology (1), Business Principles & Practices (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	Up to 1 year toward Apprenticeship Associated Builders & Contractors		6 Articulated Credits Community College of Baltimore County, Catonsville Construction Technology	
<b>From:</b>				
<b>Program:</b>				
<b>End of Program Test:</b>	NCCT Academic Core v2 National Center for Construction Education and Research (NCCER)		NCCT Academic Masonry Level I National Center for Construction Education and Research (NCCER)	
<b>Industry:</b>				
<b>Taken:</b>	At the end of Masonry I		At the end of Masonry II	

## COMPLETER: *Welding Technology*

**CREDITS: 6**

- Guideline for Course Selections
- Refer to Graduation Requirements in the Program of Studies for specific course requirements in each content area

Grade →	9	10	11	12
Exact scheduling depends on student's plan and school's master schedule.	English 9 (1)	English 10 (1)	English 11 (1)	English 12 (1)
	US Government (1)	US History (1)	World History (1)	
	Conceptual Physics (1)	Chemistry (1)	Biology (1)	
	Algebra I / Data Analysis (1)	Intermediate Algebra / Data Analysis (1)	Geometry (1)	Algebra II / Data Analysis (1)
	PE (.5) / Health (.5)		PE (.5) / Financial Literacy (.5)	
	Fine Arts (1)	Foundations of Technology (1)		
	World Language (1)	World Language (1)		
<b>Completer Program Requirements</b>			Welding Technology I (3)	Welding Technology II (3)
<b>Career Specific Electives</b> (may be taken any year offered after prerequisites have been satisfied)	Advanced Design Applications (1), Technological Design (1), Math Elective beyond Alg. 11/DA (.5-1), Business Principles & Practices (1), Business Communications & Keyboarding (1), Honors Financial Management Using Software Applications (1), Internship (.5-1)			
8 credits possible per year				
<b>Value Added:</b>	Up to 1 year toward Apprenticeship Associate Builders & Contractors		American Welding Society (AWS) Certification	
<b>From:</b>				
<b>Program:</b>				
<b>End of Program Test:</b>	NCCT Academic Core v2 National Center for Construction Education and Research (NCCER)		NCCT Academic Welding National Center for Construction Education and Research (NCCER)	
<b>Industry:</b>				
<b>Taken:</b>	At the end of Welding I		At the end of Welding II	

# CARROLL COUNTY PUBLIC SCHOOLS



## PROGRAM OF STUDIES COURSE OFFERINGS AND DESCRIPTIONS 2012-2013

### 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.



**Indicates an approved completer program. The suggested course sequence for each completer program can be found in the Career Pathways Guide on the page indicated in parenthesis.**

CCPS Courses that meet NCAA eligibility criteria are marked with a ¶ in the course descriptions.

# AGRISCIENCE



**ANIMAL & VETERINARY SCIENCE** – Four Credit Completer (page 47)

**HORTICULTURE** – Four Credit Completer (page 49)

**WILDLIFE & NATURAL RESOURCES** – Four Credit Completer (page 50)

## **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 the Horticulture and Wildlife & Natural Resources completer programs.

## **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 the Animal & Veterinary Science completer program.

## **ENVIRONMENTAL CONSERVATION**

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 the Wildlife & Natural Resources completer programs.

## **EQUINE SCIENCE** (*Will not be offered 2012-2013, will be offered 2013-2014.*)

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 AGRICULTURE, FOOD, AND NATURAL RESOURCES**

**Course #: 500116 (Academic) 1 credit**

This course introduces students to the world of agriculture and its career pathways. Students will experience “hands-on” activities, projects, and problems that involve the study of communication, sciences of agriculture, plants, animals, natural resources, and agricultural mechanics. They will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning.

Prerequisites and other notes: This course is the first class for all agriscience completer programs. It is recommended for 9<sup>th</sup> and 10<sup>th</sup> grade students.

## **LANDSCAPING (Not offered 2012/2013 – Will be offered 2013/2014)**

**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 the Horticulture and Landscaping Design & Construction completer programs.

## **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 (Biology may be taken concurrently). This course is part of the Animal & Veterinary Science completer program.

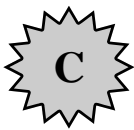
## **WILDLIFE MANAGEMENT (Not offered 2012/2013 – Will be offered 2013/2014)**

**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.

## BUSINESS EDUCATION



**ACCOUNTING** – Four Credit Completer (page 40)

**ADMINISTRATIVE SERVICES** – Four Credit Completer (page 40)

**BUSINESS ADMINISTRATION & MANAGEMENT** – Four Credit Completer (page 41)

**MARKETING** – Four Credit Completer (page 34)

### **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. Honors Financial Management Using Software Applications is a prerequisite or may be taken concurrently. This course is part of the Accounting, Business Administration & Management, and Financial Services completer programs.

### **ACCOUNTING II**

Course #: 353219 (Transcribed)

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 the Accounting and Financial Services completer programs. At the end of this course, students will take the Carroll Community College Accounting 101 final exam. Students who successfully complete this course and the exam will receive transcribed credit from Carroll Community College.

### **ADVANCED SOFTWARE APPLICATIONS**

Course #: 355717 (Articulated)

1 credit

This course develops advanced skills in software applications. Students will prepare for the specialist 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 7.

Prerequisites and other notes: Business Communications and Keyboarding, Business Principles and Practices, and Honors Financial Management Using Software Applications are prerequisites. This course is part of the Administrative Services completer program. Students who are a part of the Administrative Services completer program will take the Microsoft Office Systems (MOS) specialist exam in either Excel or Word (versions 2010) at the end of this course. This test will be taken at 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 keyboard using the touch-key system. The course includes instruction in computer hardware and software systems, digital citizenship, and use of the internet and world wide web. Students will be required to develop and work with authentic tasks using word processing, spreadsheet, multi-media presentation and publishing skills. This course provides a solid foundation for the use of computers in both academic and business settings

### **BUSINESS LAW**

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 is the first course for business completer programs. The course 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 the Accounting, Administrative Services, and Business Administration & Management completer programs.

## **DESKTOP PUBLISHING**

Course #: 351816 (Academic) 1 credit

Desktop Publishing is recommended for 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 including 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.

## **HONORS E-COMMERCE AND ENTREPRENEURSHIP**

Course #: 354518 (Honors) 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 Honors Financial Management Using Software Applications are prerequisites. This course is part of the Business Administration & Management completer program. Students will take the CLEP Principles of Management exam at the end of this course. This test is taken at Carroll Community College.

## **HONORS FINANCIAL MANAGEMENT USING SOFTWARE APPLICATIONS**

Course #: 355618 (Honors) 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 the Accounting, Administrative Services, Financial Services/National Academy of Finance Endorsement and Business Administration & Management completer programs.

## **MARKETING**

Course #: 506117 (Articulated) 1 credit

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

Prerequisites and other notes: Completion of Business Principles and Practices and Honors Financial Management Using Software Applications. This course is part of the Marketing completer program.

## **ADVANCED MARKETING**

Course #: 506617 (Articulated) 1 credit

Advanced Marketing builds on all of the concepts studied in Marketing by giving the students in-depth, comprehensive project-based learning opportunities. Students will apply their understanding of consumer buying behavior and relationships; the tools

and techniques used by organizations that identify the factors that influence marketing strategy decisions; market segmentation and target marketing; the elements of the marketing mix (product, price, promotion, and place); as well as pricing strategies to create a written professional marketing plan. Students will use strong interpersonal skills and incorporate technologies when conducting primary and secondary research. In addition, students will include alternatives of electronic and internet marketing within their marketing plan. Students will create and/or use a marketing information system(s) when working with or collecting data. Students will integrate their knowledge of legal issues, ethics, diversity and social responsibilities in developing their marketing plan.

Prerequisites and other notes: Completion of Marketing. This course is part of the Marketing completer program. At the end of this course, students will take the CLEP Principles of Marketing exam.

### **OFFICE SYSTEMS MANAGEMENT**

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 Honors Financial Management Using Software Applications are prerequisites. This course is part of the Administrative Services completer program.

## **CAREER AND TECHNOLOGY EDUCATION (OCCUPATIONAL)**



### **ACADEMY OF HEALTH PROFESSIONS – Four to Six Credit Completer (page 46)**

#### **HONORS FOUNDATIONS OF MEDICINE AND HEALTH SCIENCE**

Course #: 556518 (Honors) 1 credit

This course is designed to provide students with an overview of the therapeutic, diagnostic, environmental and information systems of the health care industry. Students will begin to prepare for a medical and health science career by developing a broad understanding of the pathways in the Health and Biosciences career cluster. Students will learn about ethical and legal responsibilities, as well as the history and economics of health care. Students will engage in processes and procedures that are used in the delivery of essential healthcare services. As students learn to use medical technology within a variety of medical and health care environments, they will develop academic, technical and workplace skills for success necessary to function as a health professional.

Prerequisites and other notes: Chemistry II must be completed or taken concurrently. This course is the first course in a 4 or 6 credit completer program.

#### **HONORS STRUCTURE AND FUNCTIONS OF THE HUMAN BODY**

Course #: 556618 (Honors) 1 credit

Students in this course study the structure and functions of the human body, including cellular biology and histology. Systematic study involves homeostatic mechanisms of the body systems and special senses. Students will investigate the body's responses to the external environment, maintenance of homeostasis, electrical interactions, transport systems, and energy processes. Students will conduct laboratory investigations and field work, use scientific methods during investigations to solve problems and make informed decisions. Students will learn the medical terminology related to body systems.

Prerequisites and other notes: Foundations of Medicine and Health Science must be completed or taken concurrently. This course is part of a 4 or 6 credit completer program.

#### **CNA: THEORY AND CLINICAL EXPERIENCE**

Course #: 556716 (Academic) 1 credit

Students will acquire the knowledge and skills required to provide basic health care to clients/patients with a variety of health care needs. Instruction includes theory, practical application in the laboratory, on-site observations and planned clinical experiences in several health care service areas. Clinical experiences are supervised by registered nurses and other health care

professionals. Students will work toward CNA and GNA certification. This course meets the standards set by the Maryland Board of Nursing.

Prerequisites and other notes: Foundations of Medicine and Health Science and Structure and Functions of the Body must be completed or taken concurrently. This course is part of a 4 or 6 credit completer program. Parents are responsible for student transportation. Students must meet all requirements established by the health facility partner. Students are required to take an end of program assessment.

### **PHYSICAL REHABILITATION: THEORY AND CLINICAL EXPERIENCE**

Course #: 556916 (Academic) 1 credit

Students will acquire the knowledge and skills required to provide basic physical rehabilitation care to clients/patients with a variety of rehabilitation needs. Instruction includes theory, practical application in the laboratory, on-site observations and planned clinical experiences in several health care service areas. Clinical experiences are supervised by health care professionals. Students have an opportunity to earn clinic hours in rehabilitation settings that meet prerequisite requirements in many post-secondary school physical rehabilitation programs. These types of programs include, but are not limited to: physical therapy; occupational therapy; speech/language pathology; athletic training; and sports medicine.

Prerequisites and other notes: Foundations of Medicine and Health Science and Structure and Functions of the Human Body must be completed or taken concurrently. This course is part of a 4-6 credit completer program. Parents are responsible for student transportation. Students must meet all requirements established by the health facility partner.

### **SPECIALIZED MEDICAL OPTION**

Course #: 556816 (Academic) 1 credit

Students will have the opportunity to attend Carroll Community College to focus on and earn certification in a specialized area of health care. Options will vary according to the current schedule at Carroll Community College and may include but are not limited to: Dental Assistant, Dental Office Administration, Pharmacy Technician, and Optometric Technician.

Prerequisites and other notes: Foundations of Medicine and Health Science and Structure and Functions of the Body must be completed or taken concurrently. This course is part of a 4 completer program. Parents are responsible for the cost of the course at Carroll Community College and student transportation. Students are required to take an end of program assessment.

### **HONORS ACADEMY OF HEALTH PROFESSIONALS INTERNSHIP**

Course #: 556718 (Honors) 1 credits  
#: 556728 (Honors) 2 credits  
#: 556738 (Honors) 3 credits

Students will have the opportunity to integrate content and knowledge of a specific medical area in a healthcare setting. Student knowledge will be extended through practical application under the supervision of health care professionals. Students will finalize their career portfolio and present it for review and critique.

Prerequisites and other notes: Foundations of Medicine and Health Science and Structure and Functions of the Body must be completed or taken concurrently. CNA certification may be required for some placements. This course is part of a 4 or 6 credit completer program. Parents are responsible for student transportation. Students must meet all requirements established by the health facility partner. This class may be extended for a maximum of 3 credits.

### **HONORS SURGICAL TECHNOLOGY AND CLINICAL EXPERIENCE**

Course #: 556538 (Honors) 3 credits

This course will prepare students to assist in a surgical setting. Students will learn to perform the skills required of a surgical technician through learning theoretical concepts, observing surgical procedures, practicing technical skills and completing a clinical experience in the operating room at Carroll Hospital Center.

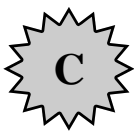
Prerequisites and other notes: Completion of Foundations of Medicine and Health Science, Structure and Functions of the Body and CNA: Theory and Clinical Experience. This course is part of a 6 credit completer program. Parents are responsible for student transportation. Students must meet all requirements established by the health facility partner.

### **HONORS HEALTH CARE TECHNICIAN AND CLINICAL EXPERIENCE**

Course #: 556638 (Honors) 3 credits

This course prepares students to serve as an assistant/technician to health care professionals. Students' content and clinical experience includes but is not limited to: medical assisting, phlebotomy, EKG, rehabilitative services, emergency care and medical/diagnostic lab skills.

Prerequisites and other notes: Completion of Foundations of Medicine and Health Science, Structure and Functions of the Body and CNA: Theory and Clinical Experience. This course is part of a 6 credit completer program. Parents are responsible for student transportation. Students must meet all requirements established by the health facility partner.



## **AUTO SERVICE TECHNOLOGY - Six Credit Completer (page 66)**

### **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: These courses are part of the Auto Service Technology completer program. At the end of this program, students will take the National Automotive Student Skills Standards Assessment (NA3SA) – Developed by Auto Service Excellence (ASE) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA Certification Tests for Brakes, Electrical/Electronic Systems, Engine Performance, and Suspension & Steering.



## **BIOMEDICAL SCIENCES – PROJECT LEAD THE WAY – Four Credit Completer (page 48)**

### **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 course is part of the BioMedical Sciences completer program. 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 course is part of the BioMedical Sciences completer program. 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.

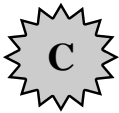
Prerequisites and other notes: This course is part of the BioMedical Sciences completer program. Honors Human Body Systems. This 12<sup>th</sup> grade class is part of a four credit career and technology education completer program. A minimum of one credit each in both college preparatory math and science is required in 12<sup>th</sup> grade.

### **HONORS BIOMEDICAL RESEARCH**

Course #: 557218 (Honors) 1 credit

This capstone course gives student teams the opportunity to work with a mentor, identify a science research topic, conduct research, write a scientific paper, and defend team conclusions and recommendations to a panel of outside reviewers. Each team will have one or more mentors from the scientific and/or medical community guiding their scientific research. This course may be combined with the capstone course from the PLTW Engineering program, allowing students from both pathways to work together to engineer a product that could impact healthcare.

Prerequisites and other notes: Completion of all three prerequisite PLTW Biomedical Sciences classes. Honors Medical Intervention may be taken concurrently. This course is part of a 4 credit completer program. Students are required to take end of program assessments.



### **BUILDING MAINTENANCE – Four Credit Completer (page 66)**

One credit must be earned from either Advanced Design Applications Course #: 450316 (Academic) or Technological Design Course #: 451216 (Academic)

### **BUILDING MAINTENANCE**

Course #: 559736-I (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.

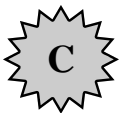
Prerequisites and other notes: Either Advanced Design Applications or Technological Design is required to complete this program. Students are required to take the National Construction Career Test (NCCT) titled Academic Core-Introductory Craft Skills Ver. 2 at the end of Level I.

### **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.



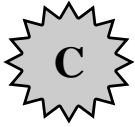
### **CARPENTRY – Six Credit Completer (page 67)**

### **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.

Prerequisites and other notes: These courses are part of the Carpentry completer program. Students are required to pass the National Construction Career Test (NCCT) titled Academic Core-Introductory Craft Skills Version 2 to achieve Level II status in construction programs. At the end of Level II, students take the NCCT Academic Carpentry Level I-v2.



## CISCO NETWORKING ACADEMY – Five to Six Credit Completer (p. 68)

### **CCNA: DISCOVERY I & II**

Course #: 557337(Articulated) 3 credits

This course provides a hands-on, projects-based classroom and laboratory experience in current and emerging networking technology for small to medium businesses. Emphasis is given to decision-making and problem-solving techniques used to address networking problems. Instruction is provided in proper care, maintenance and use of networking software, tools and equipment as they apply to government and industry standards, codes and regulations. This career-oriented approach to learning networking empowers students to enter a career and further education in the computer networking field.

Prerequisites and other notes: This course is the first course in a 5 or 6 credit completer program. Students are required to take an end of program assessment.

### **CCNA: DISCOVERY III & IV**

Course #: 557437 (Articulated) 3 credits

This course focuses on routing and switching and designing and supporting computer networks. Emphasis is given to understanding LANs, WANs and the Internet. Students will configure routing protocols on Cisco devices and perform troubleshooting using a structured methodology. They will also design an Internet Protocol and install and configure a prototype Internetwork.

Prerequisites and other notes: Completion of CCNA: Discovery I & II. This course is part of a 5 or 6 credit completer program. Students are required to take an end of program assessment.

### **PC HARDWARE AND SOFTWARE**

Course #: 557537 (Articulated) 3 credits

This course presents an in-depth exposure to computer hardware and operating systems, as well as “soft skills” related to customer interaction and service. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. This course prepares students for CompTIA's A+ certification.

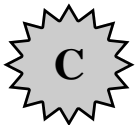
Prerequisites and other notes: Completion of CCNA: Discovery I & II. This course is part of a 5 or 6 credit completer program. Students are required to take an end of program assessment.

### **IT INTERNSHIP**

Course #: 557527 (Articulated) 2 credits

Students will have the opportunity to integrate content and knowledge of computer repair and/or networking through an individualized training plan. Student knowledge will be extended through practical application under the supervision of technical support professionals

Prerequisites and other notes: Completion of CCNA: Discovery I & II or PC Hardware and Software. This course is part of a 5 credit completer program. Parents are responsible for student transportation.



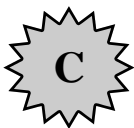
## COLLISION REPAIR TECHNOLOGY – Six Credit Completer (page 69)

### **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.

Prerequisites and other notes: These courses are part of the Collision Repair Technology completer program. At the end of the program, students take the NA3SA (National Automotive Student Skills Standards Assessment (NA3SA) – Developed by ASE (Auto Service Excellence) in partnership with Automotive Youth Educational Systems (AYES), National Automotive Technicians Education Foundation (NATEF), and Skills USA) Certification Tests for Non-Structural Analysis & Damage Repair, Painting & Refinishing, and Structural Analysis & Damage Repair.



## **COMPUTER TECHNOLOGY – Six Credit Completer (page 41)**

### **HONORS COMPUTER TECHNOLOGY**

Course #: 554538-I (Honors) 3 credits

### **AP COMPUTER TECHNOLOGY**

Course #: 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: These courses are 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. These courses are part of the Computer Technology completer program.



## **COSMETOLOGY CAREERS – Nine Credit Completer (page 58)**

### **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. This course is part of the Cosmetology completer program.

### **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. This course is part of the Cosmetology completer program.

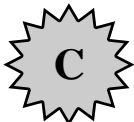
## **MASTERY OF COSMETOLOGY**

(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: This course is part of the Cosmetology completer program. Students are required to take the State Board of Cosmetologists' licensing examination at the conclusion of this class.



## **CULINARY ARTS – AMERICAN CULINARY FEDERATION (ACF) – Six Credit Completer (page 58)**

### **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 the Culinary Arts completer program. At the end of this course, students take the American Culinary Federation (ACF) Culinary Arts Cook Level I exam.

### **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 the Culinary Arts completer program. At the end of this course, students take the American Culinary Federation (ACF) Culinary Arts Cook Level 2 exam.

### **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 the Culinary Arts completer program. Students are required to take the American Culinary Federation (AFC) Retail Commercial Baking exam.



## **DRAFTING – Six Credit Completer (page 69)**

### **DRAFTING**

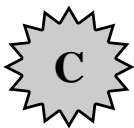
Course #: 553037-I (Articulated) 3 credits

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: These courses are part of the Drafting completer program.



## **EARLY CHILDHOOD EDUCATION – Five Credit Completer-(page 59)**

### **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 the Early Childhood Education 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.

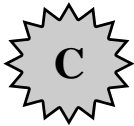
Prerequisites and other notes: Child Development Laboratory. 30 hours of student Service-Learning credit may be earned. This course is part of the Early Childhood Education completer program.

### **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: Completion of Advanced Laboratory -- Child Development. 2.5 overall GPA in Academic Level classes, 94% attendance (previous semester), and completion of accuplacer exam. Parents are responsible for student transportation. This course is part of the Early Childhood Education completer program. During this course, students will take the ParaPro exam.



**EDUCATION – MIDDLE AND HIGH SCHOOL – TEACHER ACADEMY OF MARYLAND  
(TAM) – Four Credit Completer (page 59)**

**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 the Education – Middle & High School 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.

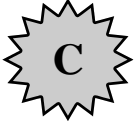
Prerequisites and other notes: Teaching As A Profession (may be taken concurrently). This course is part of the Education – Middle & High School completer program.

**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: Completion of Foundations of Curriculum and Instruction. Students must have an identified content area for teaching. 2.5 overall GPA in Academic Level classes, 94% attendance (previous semester). Parents are responsible for student transportation. This course is part of the Education – Middle & High School completer program. During this course, students will take the ParaPro exam.



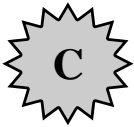
## **ELECTRICAL CONSTRUCTION – Six Credit Completer (page 70)**

### **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: These courses are part of the Electrical Construction completer program. Students are required to pass the National Construction Career Test (NCCT) titled Academic Core-Introductory Craft Skills Version 2 to achieve Level II status in construction programs. Students who successfully complete the program will take the Academic Electrical Level I-v2 National Construction Career Test (NCCT).



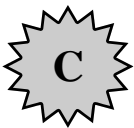
## **EMERGENCY SERVICE TECHNOLOGY – Four Credit Completer (page 60)**

### **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. Students are required to take the EMT-B, HAZMAT, Firefighter I, Rescue Tech, Truck Company Operations Tests.



## **ENGINEERING – PROJECT LEAD THE WAY – Four Credit Completer (page 70)**

### **PRINCIPLES OF ENGINEERING**

Course #: 540119 (Transcripted) 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: This course is part of the Engineering completer program. Geometry is recommended as a prerequisite or may be taken concurrently. A math course is required in each year of high school. Students can take the college level exam at the end of this course. Students who successfully complete this course and the final exam may apply for transcripted 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 the Engineering completer program. Students can take the college level exam at the end of this course. Students who successfully complete this course and the final exam 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 the Engineering completer program. Students can take the college level exam at the end of this course. Students who successfully complete this course and the final exam may apply for transcribed credit from Rochester Institute of Technology (RIT) and University of Maryland Baltimore County (UMBC).

## **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.

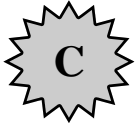
Prerequisites and other notes: Honors Principles of Engineering, Introduction to Engineering Design, and Intermediate Algebra/Data Analysis or higher are recommended as prerequisites or may be taken concurrently. A math class is required in each year of high school. This course is part of the Engineering completer program. Students can take the college level exam at the end of this course. Students who successfully complete this course and the final exam may apply for transcribed credit from Rochester Institute of Technology (RIT) and University of Maryland Baltimore County (UMBC).

## **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 the Engineering completer program.



## **FINANCIAL SERVICES – NATIONAL ACADEMY FOUNDATION (NAF) ACADEMY OF FINANCE – Six Credit Completer (page 42)**

### **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: Honors 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 the Financial Services completer program.

### **FINANCE ACADEMY II**

Course #: 352419 (Transcribed)              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 the Financial Services completer program.

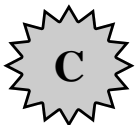
### **HONORS ACADEMY OF FINANCE INTERNSHIP**

**Course #: 352418 (Honors)                      1 credit**

**Course #: 352528 (Honors)                      2 credits**

This internship is an extension of the Academy of Finance curriculum. Student knowledge and skills are further developed and challenged in a business environment. This relevant, enriching educational experience exposes the student to a broad array of workplace skills that are part of an individualized training plan.

Prerequisites and other notes: The internship may be taken following the completion of junior year classes in Academy of Finance. This class is a part of the Financial Services completer and is a requirement in order to receive a National Academy Foundation (NAF) certification.



## **FLORAL DESIGN – Six Credit Completer (page 26)**

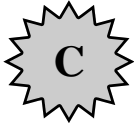
### **FLORAL DESIGN**

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: These courses are part of the Floral Design completer program.



## **FOOD SERVICE AND HOSPITALITY MANAGEMENT (PROSTART) – Four Credit Completer (page 60)**

### **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 the Accounting, Administrative Services, and Business Administration & Management completer programs.

### **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 Food Service & Hospitality Management completer program. Students will have the opportunity to begin to accrue hours to meet a 400 hour internship requirement through ProStart and earn the ServSafe credential. 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. Business Principles and Practices is a prerequisite or may be taken concurrently. This is the second course of a four credit career and technology education Food Service & Hospitality Management 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.

### **PROSTART INTERNSHIP**

Course #: 402617 (Articulated) 1 credit

Students will have the opportunity to integrate content and knowledge of food service and hospitality through an individualized training plan. Student knowledge will be extended through practical application under the supervision of food service and hospitality professionals

Prerequisites and other notes: Completion of Food Service Professional II and Business Principles and Practices. This is the culminating course in a 4 credit completer program. To earn ProStart certification, students must complete a total of 400 hours in internships. Parents are responsible for student transportation.



## **GEOGRAPHIC INFORMATION SYSTEMS AND TECHNOLOGY – Four Credit Completer (page 49)**

### **FOUNDATIONS OF HOMELAND SECURITY AND EMERGENCY PREPAREDNESS**

Course #: 540616 (Academic) 1 credit

Homeland security and emergency preparedness guidelines, concepts, and action plans are key concepts in this course. Emphasis will be placed on unique aspects of public safety and public health. Various methodologies for intelligence gathering and dissemination will be examined. Students will identify various local, state, and federal assets and prepare an action plan that includes initial notification, emergency response (on and off scene), and recovery.

Prerequisites and other notes: This course is part of the Geographic Information and Technology completer.

## **SPATIAL TECHNOLOGY AND REMOTE SENSING (S.T.A.R.S.) COURSE 1 AND 2**

**Course #: 540716 (Academic) 1 credit**

This class will introduce students to Geographic Information System (GIS) and Remote Sensing (RS) technology through academic study and applied instruction. This course provides the foundation of the *STARS Entry-Level GIS Technician Certification*. Teachers and students will use a locally customized Geographic Information System (GIS) to learn about their local community. They will use the same data, imagery and software that NASA uses to study their state, county and school. Students will also learn the skills required to work on and/or build a Geographic Information Systems/Remote Sensing project. Through hands-on instruction students will learn skills ranging from introductory digital mapping to image analysis. In this course students are introduced to each skill with a real world application and led in the problem solving process. Follow-up applied practice application will direct the student to apply acquired skills to cases in the local community using the supplied data.

Prerequisites and other notes: This course is part of the Geographic Information and Technology completer.



### **HVAC: HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION – Six Credit Completer (page 71)**

#### **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.

Prerequisites and other notes: These courses are part of the HVAC completer program. Students are required to pass the National Construction Career Test (NCCT) titled Academic Core-Introductory Craft Skills Version 2 to achieve Level II status in construction programs. At the end of Level II, students will take the NCCT Academic in HVAC exam.



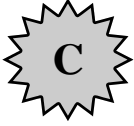
### **HEAVY EQUIPMENT AND TRUCK TECHNOLOGY – Six Credit Completer (page71)**

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

Course #: 558237-I (Articulated) 3 credits  
Course #: 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: These courses are part of the Heavy Equipment & Truck Technology completer program. At the end of the program, students are required to take an end of course assessment - Heavy Equipment Maintenance and Repair.



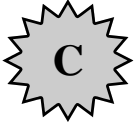
## LANDSCAPING DESIGN & CONSTRUCTION – Six Credit Completer (page 72)

### 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: These courses are part of the Landscaping Design & Construction completer program.



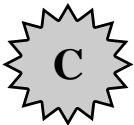
## MANUFACTURING & MACHINE TECHNOLOGIES – Six Credit Completer (page 72)

### 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: These courses are part of the Manufacturing & Machine Technologies completer program. At the end of this program, students will take the NIMS Measurement, Materials, and Safety, Job Planning, Bench Work and Layout exam; other tests optional for qualified students.



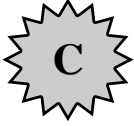
## MASONRY – Six Credit Completer (page 73)

### 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.

Prerequisites and other notes: These courses are part of the Masonry completer program. Students are required to pass the National Construction Career Test (NCCT) titled Academic Core-Introductory Craft Skills Version 2 to achieve Level II status in construction programs. At the end of Level II, students will take the NCCT Academic Level I in Masonry.



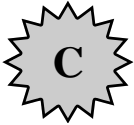
## **PRINT PRODUCTION – Four Credit Completer (page 27)**

### **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.

Prerequisites and other notes: Graphic Communications (1 credit) or Commercial Art (1 credit). This course is part of the Print Production and Media Communications Technology completer programs. At the end of the program, students are required to take the PrintED exams titled Graphic Communications and Digital File Preparation/Digital Rile Output.



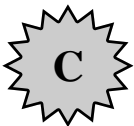
## **TEXTILES & FASHION CAREERS – Six Credit Completer (page 27)**

### **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: These courses are part of the Textiles & Fashion Careers completer program.



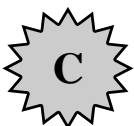
## **VIDEO PRODUCTION – Four Credit Completer (page 28)**

### **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 the Video Production and Media Communications Technology completer programs.



## **WELDING TECHNOLOGY – Six Credit Completer (page 73)**

### **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.

Prerequisites and other notes: These courses are part of the Welding Technology completer program. Students are required to pass the National Construction Career Test (NCCT) titled Academic Core-Introductory Craft Skills Version 2 to achieve Level II status in construction programs. At the end of Level II, students will take the NCCT Academic in Welding.



## 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 the Early Childhood Education complete 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 the Early Childhood Education complete program.

### **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.

### **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.

**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.

**CLOTHING**

Course #: 403907 (Articulated) ½ 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 the Textiles & Fashion Careers complete program.

**FLOWER DESIGN**

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. Basic supplies for learning each technique will be supplied; however, project expense will be the responsibility of each student.

Prerequisites and other notes: Flower Design may be repeated for up to 2 credits. This is part of the Floral Design and Horticulture complete programs.

**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. This course is open to 11<sup>th</sup> and 12<sup>th</sup> grade students only.

## ENGLISH LANGUAGE ARTS

### Suggested Course Sequence

Grade 9	Grade 10	Grade 11	Grades 12
<ul style="list-style-type: none"> <li>▪ English 9</li> <li>▪ Electives</li> </ul>	<ul style="list-style-type: none"> <li>▪ English 10</li> <li>▪ Electives</li> </ul>	<ul style="list-style-type: none"> <li>▪ English 11</li> <li>▪ AP English Language and Composition</li> <li>▪ Electives</li> </ul>	<ul style="list-style-type: none"> <li>▪ English 12</li> <li>▪ AP English Literature and Composition</li> <li>▪ Electives</li> </ul>

**ENGLISH 9**

Course #: 050111 (Basic) 1 credit

**ENGLISH 9**

Course #: 050116 (Academic) 1 credit

**HONORS ENGLISH 9**

Course #: 050018 (Honors) 1 credit

The outcomes of this course are aligned with the Common Core State Standards for English Language Arts and the Maryland Common Core State Curriculum Frameworks. Students develop reading, writing, language, listening, and speaking skills through integrated instructional approaches using informational and literary texts. Integrated instructional approaches include a focus on active reading, process writing, academic vocabulary, and grammatical structures. 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. This course fulfills one credit of the State graduation requirements in English.

**ENGLISH 10****Course #: 050211 (Basic) 1 credit****ENGLISH 10****Course #: 050216 (Academic) 1 credit****HONORS ENGLISH 10****Course #: 050218 (Honors) 1 credit**

The outcomes of this course are aligned with the Common Core State Standards for English Language Arts and the Maryland Common Core State Curriculum Frameworks. Students will master the skills of reading, writing, language, listening, and speaking skills introduced in English 9. The course will continue its focus on integrated instructional approaches and will include collaborative activities. This course fulfills one credit of the State graduation requirements in English.

Prerequisites and other notes: English 9

**ENGLISH 11****Course #: 050411 (Basic) 1 credit****ENGLISH 11****Course #: 050416 (Academic) 1 credit****HONORS ENGLISH 11****Course#: 050418 (Honors) 1 credit**

The outcomes of this course are aligned with the Common Core State Standards for English Language Arts and the Maryland Common Core State Curriculum Frameworks. 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. This course fulfills one credit of the State graduation requirements in English.

Prerequisites and other notes: English 10

**ENGLISH 12****Course #: 050511 (Basic) 1 credit****ENGLISH 12****Course #: 050516 (Academic) 1 credit****HONORS ENGLISH 12****Course #: 050518 (Honors) 1 credit**

The outcomes of this course are aligned with the Common Core State Standards for English Language Arts and the Maryland Common Core State Curriculum Frameworks. 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 and speaking. This course fulfills one credit of the State graduation requirements in English.

Prerequisites and other notes: English 11

**AP LANGUAGE AND COMPOSITION****Course #: 052919 (AP) 1 credit**

AP Language 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 rhetorical analysis and evaluation, reading, writing, research, and linguistics. Learning activities focus upon writing timed responses to a variety of language related 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 strategies of persuasion and argumentation; linguistic theory, philosophy, and history; methods of grammatical analysis; and the relationships among logic, reading, writing, and thinking. Students are encouraged to sit for the College Board's Advanced Placement English Language and Composition Examination. This course fulfills one credit of the State graduation requirements in English.

Prerequisites and other notes: Students must complete English 10 prior to enrollment in AP Language 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. This course fulfills one credit of the State graduation requirements in English.

Prerequisites and other notes: Students must complete AP Language and Composition or English 11 prior to enrollment in AP Literature and Composition.

### **CREATIVE WRITING**

Course #: 053606 (Academic)                      ½ credit    Y

Creative Writing 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. This course may not be used to meet the State graduation requirements in English.

### **PUBLIC SPEAKING**

Course #: 057606 (Academic)                      ½ credit    Y

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. This course may not be used to meet the State graduation requirements in English.

### **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. This course may not be used to meet the State graduation requirements in English.

Prerequisites and other notes: Successful completion of English 9.

### **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. This course may not be used to meet the State graduation requirements in English.

Prerequisites and other notes: Ten (10) service-learning hours for ½ credit course and 20 service-learning hours for 1 credit course may be earned.

### **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: This course may not be used to meet the State graduation requirements in English. This course may be repeated for credit.

### **WRITING ASSISTANT**

Course #: 082606 (Academic)                      ½ credit  
              082616 (Academic)                      1 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. This course may not be used to meet the State graduation requirements in English.

Prerequisites and other notes: Ten (10) service-learning hours may be earned

## FINE ARTS

Completed credit in any Fine Arts course may be applied to the Fine Arts Graduation requirements unless otherwise indicated.

### ART Suggested Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
▪ Art I	▪ Art II: Two and Three Dimension Art	▪ Honors Level Art courses	▪ Honors Level Art courses or Advanced Placement Art courses

#### ART I

Course #: 600006 (Academic)	½ credit
600016 (Academic)	1 credit
600106 (Academic)	½ credit

#### ART II: TWO AND THREE DIMENSION ART

Course #: 600616 (Academic)	1 credit
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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 sketchbooks. Basic supplies for learning each technique will be supplied; however, the expense of more advanced materials, if desired, will be the responsibility of each student.

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.

#### APPLIED ART

Course #: 603606 (Academic)	½ credit
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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.

#### HONORS CERAMICS

Course #: 603018 (Honors)	1 credit
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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 should expect some financial responsibility for advanced art materials.

Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite.

### **HONORS COMMERCIAL ART**

Course #: 601208 (Honors)                      ½ 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. Students should expect some financial responsibility for advanced art materials.

Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite. This course is part of a complete program, which articulates with Carroll Community College and the Art Institute of Washington.

### **HONORS DRAWING**

Course #: 610018 (Honors)                      1 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. Students should expect some financial responsibility for advanced art materials.

Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite.

### **HONORS DIGITAL DESIGN IN PHOTOGRAPHY**

Course #: 601318 (Honors)                      1 credit

Honors 2-D Digital Design is an upper level art course which focuses on the creation of a digital design and photography portfolio. Photography will be presented through historical and contemporary examples. Various traditional and non-traditional photo processes will be experienced. Digital photography principles including camera operation, composition, lighting, and personal expression through photography will be explored. Art elements and design principles will be demonstrated in a digital format. Photo manipulation and software will be presented to assist students in enhancing and/or manipulating photographs. Students should expect some financial responsibility for advanced art materials.

Prerequisites and other notes: Successful completion of Art II (or recommendation of the art instructor) is a prerequisite.

### **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.

Successful completion of this course will develop the student's foundation portfolio in preparation for Advanced Placement Studio Art. Students should expect some financial responsibility for advanced art materials.

Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite.

### **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. Students should expect some financial responsibility for advanced art materials.

Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite.

## HONORS STUDIO ART

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. Successful completion of this course will develop the student's foundation portfolio in preparation for Advanced Placement Studio Art. Students should expect some financial responsibility for advanced art materials.

Prerequisites and other notes: Successful completion of Art II: Two and Three Dimension Art (or recommendation of the art instructor) is a prerequisite.

## AP ART: AP STUDIO ART

Studio Art

Course #: 601719 (AP)

1 credit

This course enables students to prepare a portfolio for submission to the AP Studio Drawing Exam. AP Studio Art develops the personal commitment to visual expression through rigorous problem-solving and demonstration of material and concept mastery. Each of the portfolios asks the student to demonstrate a depth of investigation and process of discover through the **concentration** section (Section II). In the **breadth** section (Section III), the student is asked to demonstrate a serious grounding in visual principles and material techniques. The **quality** section (Section I) permits the student to select the works that best exhibit a synthesis of form, technique, and content. 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 submit for the College Board's Advanced Placement Studio Art examination. Students should expect some financial responsibility for advanced art materials. AP Studio Drawing is designed to address a very broad interpretation of drawing issues and media. Students will explore light and shade, line quality, rendering of form, composition, surface manipulation, and illusion of depth as drawing issues that may be addressed through a variety of means, which could include painting, printmaking and mixed media. Abstract as well as observational works may also be explored to demonstrate drawing competency.

Prerequisites and other notes: Successful completion of one of the Honors Level Art Electives (or recommendation of the art instructor) is a prerequisite.

## AP ART: AP STUDIO 2D DESIGN

Studio 2D Design

Course #: 601919 (AP)

1 credit

This course enables students to prepare a portfolio for submission to the AP Studio 2D Design Exam. AP Studio Art develops the personal commitment to visual expression through rigorous problem-solving and demonstration of material and concept mastery. Each of the portfolios asks the student to demonstrate a depth of investigation and process of discovery through the **concentration** section (Section II). In the **breadth** section (Section III), the student is asked to demonstrate a serious grounding in visual principles and material techniques. The **quality** section (Section I) permits the student to select the works that best exhibit a synthesis of form, technique, and content. 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. Students are encouraged to submit for the College Board's Advanced Placement Studio Art examination. Students should expect some financial responsibility for advanced art materials. AP Studio 2D Design is intended to address two-dimensional design issues. Students will make purposeful decisions about how to use the elements and principles of art in an integrative way. The visual elements (line, shape, color, value, texture, space), help guide artists in making decisions about how to organize elements on a picture plane in order to communicate content. This course will explore the principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, figure/ground relationships), articulated through the art elements in a representational or abstract way.

Prerequisites and other notes for all AP courses: Successful completion of one of the Honors Level Art Electives (or recommendation of the art instructor) is a prerequisite.

**DANCE**  
**Suggested Course Sequence**

Grade 9	Grade 10	Grade 11	Grade 12
▪ Dance I	▪ Dance II	▪ Applied Dance	▪ Applied Dance
▪ Movement for Athletes	▪ Dance I	▪ Dance II	▪ Applied Dance

**DANCE I**

Course #: 657006 (Academic)      ½ credit  
                   657016 (Academic)      1 credit

Introductory course in dance to give students an understanding of the fundamental concepts and skills of dance. All skills will be taught to develop the students' technical skill, understanding of dance within a social/historical context. Students will need to demonstrate the use of the acquired skills for creative expression and aesthetic judgment.

Prerequisites and other notes: Students should expect some financial responsibility for proper dance attire.

**DANCE II**

Course #: 657216 (Academic)      1 credit

A continuation of Dance I with extended concepts in technique at the intermediate level. Emphasis will be on creating and communicating through dance; dance and media, and concepts such as dynamic alignment. Units include Ballet, Modern, and Jazz.

Prerequisites and other notes: Successful completion of Dance I or instructor's recommendation. This course may be repeated for elective credit. Students should expect some financial responsibility for proper dance attire.

**APPLIED DANCE**

Course #: 657106 (Academic)      ½ credit  
                   657116 (Academic)      1 credit

Performance based course in dance to provide opportunities for refinement and enrichment of dance skills in an ensemble format. Students' will be required to research social/historical context of the assigned styles and literature. Refinement of creative expression and aesthetic judgment are of primary focus.

Prerequisites and other notes: Successful completion of one credit of Dance II is a prerequisite or demonstration of formal dance training as determined by the teacher. This course may be repeated for elective credit. Students should expect some financial responsibility for proper dance attire.

**MOVEMENT FOR ATHLETES**

Course #: 657306 (Academic)      ½ credit  
                   #: 657316 (Academic)      1 credit

Students will learn how to enhance and refine athletic performance relating to techniques and training utilized in the art of dance. Throughout the course, students will focus on strength, flexibility, balance and coordination. Units will emphasize the health and skill-related components of physical fitness, injury prevention, teamwork, leadership and performance.

Prerequisites and other notes: This course may be repeated for elective credit. Students should expect some financial responsibility for proper attire.

## DRAMA

### Suggested Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
<ul style="list-style-type: none"> <li>▪ Drama I</li> </ul>	<ul style="list-style-type: none"> <li>▪ Drama II or Technical Theater I</li> </ul>	<ul style="list-style-type: none"> <li>▪ Drama III or Drama II</li> </ul>	<ul style="list-style-type: none"> <li>▪ Independent Study or Drama III or Technical Theater I</li> </ul>

#### **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.

#### **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 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.

#### **TECHNICAL THEATER I**

Course #: 060606 (Academic)                      ½ credit

Students will learn the technical and business aspects of theatre production. In Tech I, students will receive an overview of the various elements of technical theatre including scenic, costumes, sound, light, and production. Career opportunities in each related field of technical theatre will also be discussed. Students will participate in a variety of instructional activities to demonstrate understanding in the various areas of technical theatre.

Prerequisites and other notes: Drama I is a prerequisite. This course may be repeated for elective credit.

## MUSIC

### Suggested Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
<b>Students Interested in Band</b>			
▪ Band I	▪ Honors Wind Ensemble	▪ or Honors Wind Ensemble or AP Music Theory	▪ Honors Wind Ensemble and Music History
<b>Students Interested in Orchestra</b>			
▪ Orchestra	▪ Honors Orchestra	▪ Honors Orchestra and AP Music Theory	▪ Honors Orchestra and Music History
<b>Students Interested in Chorus</b>			
▪ Chorus	▪ Honors chorus or Honors Festival Chorus or Honors Vocal Ensemble	▪ Honors Chorus or Honors Festival Chorus or Honors Vocal Ensemble and AP Music Theory	▪ Honors Chorus or Honors Festival Chorus or Honors Vocal Ensemble and Music History
<b>Students Interested in Non-performance Music Study</b>			
		▪ Honors Music Theory	▪ AP Music Theory

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 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.

#### **ENSEMBLE PARTICIPATION**

Course #: 652516 (Academic)      1 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.).

Prerequisites and other notes: Permission of the instructor is required prior to selecting this activity. Ensemble Participation 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.

#### **CHORUS**

Course #: 654816 (Academic) 1 credit

**HONORS CHORUS**

Course #: 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.

**HONORS VOCAL ENSEMBLE**

Course #: 656018 (Honors) 1 credit

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.

**MUSIC HISTORY AND LITERATURE** *(Not offered 2012-2013, will be offered 2013-2014)*

Course #: 653216 (Academic) 1 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.

**HONORS MUSIC THEORY**

Course #: :653618 (Honors) 1 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 should complete 1 credit of music course work or recommendation of instructor.

## GUIDANCE / COUNSELING

**FRESHMAN SEMINAR**

Course #: 801106 (Academic) ½ credit

**HONORS FRESHMAN SEMINAR**

Course #: 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.

**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. Peer Facilitators may be requested to work one-on-one, or in small groups with other students on school, peer, and family related concerns. Peer Facilitators may also do classroom presentations on conflict resolution. 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

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 and have completed English 9 and English 10.

## **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. Issues that will be included are: mental and emotional health; alcohol, tobacco, and other drugs; personal and consumer health; Family Life and Human Sexuality; safety and injury prevention; nutrition and fitness; and disease prevention and control.

Prerequisites and other notes: This ½ credit course is required for graduation and is designed for coeducation classes.

*NOTE TO PARENTS:* A letter will be sent home from your child's health educator explaining the Family Life and Human Sexuality component of the Health I program. This letter will include a permission slip which must be returned to school for your child to participate.

### **HEALTH II**

Course #: 302006 (Academic) ½ credit

This elective course provides an additional opportunity for students to pursue their interests in health. Through research and projects, students will explore various health topics including but not limited to, body systems, diseases, safety, nutrition, human sexuality and current health issues. Instruction will be offered in CPR/AED First Aid certification. Attention will be given to health-related career opportunities.

Prerequisites and other notes: Successful completion of Health I.

## **JUNIOR ROTC (JROTC)**

### **LEADERSHIP EDUCATION AND TRAINING I**

Course #: 570116 (Academic) 1 credit

This course includes classroom and laboratory instruction in the history, customs, traditions, and purpose of Army ROTC. It contains the development of basic leadership skills, communication skills, and conflict management and resolution skills. Emphasis is placed on writing skills and oral communication techniques. Financial planning is introduced. Physical fitness, healthy lifestyles, and basic first aid measures are discussed. An overview of geography and the globe are incorporated into this course. Also included is a study of the U.S. Constitution, Bill of Rights, responsibilities of U.S. citizens, and the federal justice system. Students will participate in drill activities.

### **LEADERSHIP EDUCATION AND TRAINING II**

Course #: 570216 (Academic) 1 credit

This course includes classroom and laboratory instruction on skills taught in LET I. This course introduces equal opportunity and sexual harassment. It provides instruction in leadership styles and practical time to exercise leadership theories as well as the basic principles of management. The course provides self-assessments to help students determine their skill sets and opportunities to teach using accepted principles and methods of instruction. Students will participate in drill activities.

Prerequisites and other notes: LET I

### **LEADERSHIP EDUCATION AND TRAINING III**

Course #: 570316 (Academic) 1 credit

This course includes classroom and laboratory instruction. Leadership and decision-making skills are emphasized throughout the course. Topics addressed include: services available in the military, financial management, United States history, and career exploration and the development of a career portfolio. The research, identification, planning, and execution of a service-learning activity is also included. Students will participate in drill activities.

Prerequisites and other notes: LET II.

### **LEADERSHIP EDUCATION AND TRAINING IV**

Course #: 570416 (Academic) 1 credit

This course includes classroom and laboratory instruction. LET IV includes requirements for the practical application of leadership duties. An emphasis is placed on exercises in writing skills. Physical fitness is also a part of this course. Other topics that are included are: geography, environmental issues, the judicial system, the Constitution, and local government. Students will participate in drill activities.

Prerequisites and other notes: LET III.

### **LEADERSHIP EDUCATION AND TRAINING V**

Course #: 570516 (Academic) 1 credit

The advanced curriculum LET V course includes both classroom and laboratory instruction. It builds on leadership and management skills cadets learned in the four (4) previous LET levels of JROTC. Emphasis is placed on study skills, thinking skills, communications skills, and personnel and unit management skills to enable students to develop their maximum potential. Cadets will use self-assessment and peer counseling tools and techniques to determine the current status of the unit, develop plans and schedules for the unit's improvement and growth, and continue to make strides toward graduation. Students will continue to participate in and lead drill, physical fitness, and leadership development activities.

Prerequisites and other notes: LET IV

### **LEADERSHIP EDUCATION AND TRAINING VI**

Course #: 570616 (Academic) 1 credit

This course includes and expands on unit organization and management skills cadets developed in the previous LET levels of JROTC. Topics explored and expanded in this course include conflict resolution, teaching skills, making a difference with service-learning, career knowledge and preparing for the future, planning skills and social responsibility, and the high school financial planning program. Cadets will use a hands-on approach to assist instructors with developing better U.S. citizens of their fellow cadets, assist with instructions in the classroom, during drills, at physical fitness sessions, and assist with extracurricular team activities-to include Color Guard, Drill Team, and Cadet Raider Challenge Team. Students will participate in unit activities.

Prerequisites and other notes: LET V

### **LEADERSHIP EDUCATION AND TRAINING VII**

Course #: 570716 (Academic) 1 credit

This course gives senior level JROTC cadets the opportunity to provide direct assistance to lower level cadets through classroom assisted instruction, on the field drill instruction and inspections, and conduct of leadership lab. Cadets will demonstrate to fellow cadets-through their conduct-the importance of maintaining a physical fitness regimen, healthy lifestyle and diet, and proficiency in basic first aid/life-saving skills. Continued emphasis will be placed on the importance of continuing the quest completing high school. Likewise, continued emphasis will be placed on drug awareness and substance abuse, substance abuse-intervention and prevention, and improving your surroundings and environment through personal involvement. Cadets will receive instruction in citizenship and leadership development.

Prerequisites and other notes: LET VI

### **LEADERSHIP EDUCATION AND TRAINING VIII**

This final course includes enabling senior cadets to employ the leadership, management, and citizenship skills they developed in the classroom and laboratory to prepare for graduation. Cadets will assume leadership positions in the unit, serve as advisors to fellow cadets, oversee unit activities, help prepare fellow cadets for annual summer leadership camp, and provide advice and assistance to instructors for strategies to improve the JROTC program. Emphasis will be placed on exploring the world, your job as an American citizen, sources of power, the Federal judicial system, and growth of a nation. Cadets will oversee, assist, and direct service-learning projects and activities of fellow students. Cadets will assist with the overall operation of the JROTC program while continuing to prepare for graduation.

Prerequisites and other notes: LET VII

## MATHEMATICS

### Suggested Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
<b>Students Completing Honors Intermediate Algebra/Data Analysis in 8<sup>th</sup> Grade</b>			
<ul style="list-style-type: none"> <li>▪ Honors Geometry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Honors Algebra II/Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Honors Trigonometry/Pre-Calculus</li> </ul>	<ul style="list-style-type: none"> <li>▪ AP Calculus AB</li> <li>▪ AP Calculus BC</li> </ul>
<b>Students Completing Honors Algebra I/Data Analysis in 8<sup>th</sup> Grade</b>			
<ul style="list-style-type: none"> <li>▪ Intermediate Algebra/Data Analysis</li> <li>▪ Honors Intermediate Algebra/Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Geometry</li> <li>▪ Honors Geometry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Algebra II/Data Analysis</li> <li>▪ Honors Algebra II/Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Trigonometry/Pre-Calculus</li> <li>▪ Honors Calculus</li> <li>▪ Honors Trigonometry/Pre-Calculus</li> <li>▪ AP Calculus AB</li> <li>▪ Probability and Statistics</li> </ul>
<b>Students Taking 8<sup>th</sup> Grade (Course 3) Math in 8<sup>th</sup> Grade</b>			
<ul style="list-style-type: none"> <li>▪ Algebra I/Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Intermediate Algebra/Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Geometry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Algebra II/Data Analysis</li> </ul>
<b>or</b>			
<ul style="list-style-type: none"> <li>▪ Algebra I/Data Analysis AB (Two Courses)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Applied Geometry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Option – Geometry and/or Intermediate Algebra/Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Option – Geometry and/or Algebra II/Data Analysis</li> </ul>
<b>Notes:</b>			
<ul style="list-style-type: none"> <li>▪ Students on track to meet the University System of Maryland graduation requirements must take Algebra II/Data Analysis or a course beyond Algebra II/Data Analysis during the final year of high school.</li> <li>▪ Following successful completion of Algebra II/Data Analysis, students may also elect to take the following courses: Trigonometry, Probability and Statistics, AP Statistics</li> </ul>			

### PRE-ALGEBRA

Course #: 201511- I (Basic)

1 credit

This course is designed for those students who have demonstrated marked deficiencies in mathematics. Course content includes basic concepts with fractions, decimals, algebra language, integers, and one-step equations. Students will begin instruction on the State of Maryland's Core Learning Goals for the Algebra/Data Analysis Test.

Prerequisites and other notes: Ninth grade students are placed in this course on recommendations of previous mathematics instructors. This course is for elective credit only and cannot count for any of the required math credits.

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, as well as applications are stressed. Probability and data analysis will be emphasized. This course prepares students for the High School Assessment-Algebra and Data Analysis.

#### **ALGEBRA I / DATA ANALYSIS – AB**

Course #: 201716 (Academic) – Part A 1 credit

Course #: 202016 (Academic) - Part B 1 credit †

This two credit Algebra I/Data Analysis alternative provides additional time for students to be successful with this important course content. This course prepares students for the High School Assessment – Algebra and Data Analysis. Successful completion fulfills the Maryland State algebraic topics mathematics graduation requirement.

#### **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, equations/inequalities, and complex numbers. The solution of related problems using the graphing calculator will be included.

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 fulfill the algebra component of 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: Intermediate Algebra/Data Analysis

#### **APPLIED GEOMETRY**

Course #: 204316 (Academic) 1 credit

This academic course is for students who completed the extended time Algebra I/ Data Analysis – A/B course. Students successfully completing this course meet the Maryland geometry curriculum standards while also exploring applications in career settings.

Prerequisites and other notes: Algebra I / Data Analysis – A/B is a prerequisite. Note: Students earning credit in both Algebra I / Data Analysis A/B and 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 #: 202516 (Academic) 1 credit †

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

Course #: 202518 (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, probability correlation and regression, polynomial & rational functions, exponential & logarithmic functions, and Honors Algebra II/Data Analysis will also include 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 #: **205016 (Academic)**      **1 credit**    ¶

Course #205006 (.5) 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. Topics included in course #205016 (1.0) are broken into four main categories: Exploratory Analysis, Planning a Study, Probability, and Statistical Inference. Focus will be on basic skills, statistical interpretation, and real world applications. Students will complete a culminating course project and be sufficiently prepared to take Statistics in college.

Prerequisites and other notes for both courses: Algebra II/Data Analysis

### **AP 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: Algebra II/Data Analysis

### **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 (Honors 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

### **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: Trigonometry / Pre-calculus (Honors highly recommended)

### **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.

**MEDIA CENTER STUDENT ASSISTANT**

Course #: 850006 (Academic)      ½ credit  
 850016 (Academic)                1 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.

**PHYSICAL EDUCATION****Suggested Course Sequence**

Grade 9	Grade 10	Grade 11	Grade 12
Physical Education I (required)	Team Sports Individual/Dual Sports Weight Training Personal Fitness	Team Sports Individual/Dual Sports Weight Training Advanced Weight Training Personal Fitness	Team Sports Individual/Dual Sports Weight Training Advanced Weight Training Personal Fitness, Organization & Admin. of PE (by teacher recommendation)

**PHYSICAL EDUCATION I**

Course #: 250006 (Academic)      ½ credit

Physical Education I is required as ½ credit towards the CCPS Physical Education 1.0 graduation requirement and is the prerequisite for all other PE courses. 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: Fitness (Warm-ups, Plyometrics, Walking/Jogging, Heart Rate Fitness), Throwing and Catching (Ultimate Frisbee, Volleyball, Flag Football, Soccer, Basketball), Striking (Tennis, Pickleball, Badminton, Golf, Table Tennis) and Speed/Timing /Accuracy (Archery, Bowling)

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

**ADAPTED PHYSICAL EDUCATION**

Course #: 252406 (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 school 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: Successful completion of Physical Education I. 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 (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: Successful completion of Physical Education I. 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.

### Suggested Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
Conceptual Physics	Chemistry I	Biology I Electives	Earth Science Electives
<b>Or</b>			
Conceptual Physics Chemistry I	Biology I Chemistry II	Ecology Anatomy AP Physics AP Chemistry AP Environmental Studies AP Biology	Earth Science Science Research I Science Research II Science Research III Science Research IV

#### 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 issue 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 "Y"

**HONORS CHEMISTRY II**

Course #: 154818 (Honors) 1 credit "Y"

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 "Y"

**HONORS HUMAN ANATOMY AND PHYSIOLOGY**

Course #: 156018 (Honors) 1 credit "Y"

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 SCIENCE**

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 SCIENCE**

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.

**HONORS EARTH SCIENCE**

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

**SCIENCE RESEARCH I**

Course #: 156616 (Academic) 1 credit ¶

### **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.

### **SCIENCE RESEARCH II**

Course #: 156716 (Academic) 1 credit ¶

### **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 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. This course may be repeated for elective credit.

### **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 ENVIRONMENTAL STUDIES**

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, Chem II Highly Recommended, Alg II Highly Recommended

### **AP PHYSICS**

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: Conceptual Physics, Intermediate Algebra/Data Analysis

# SOCIAL STUDIES

## Suggested Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12
Government	U.S. History Electives	World History Electives	Electives

### GOVERNMENT

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

### HONORS GOVERNMENT

Course #: 100118 (Honors) 1 credit "Y"

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.

### AP UNITED STATES GOVERNMENT AND POLITICS *(Not offered in 2012/2013, will be offered in 2013/2014)*

Course #: 100119 (AP) 1 credit

This course is designed to provide students with learning opportunities equivalent to those of a U.S. or comparative government and politics college-level course. Topics studied include: constitutional underpinnings of United States Government; political beliefs and behaviors; political parties, interest groups, and mass media; institutions of national government; public policy; civil rights and civil liberties. Throughout the study of these topics, students will know important facts, concepts, and theories about U.S. government and politics, understand the typical patterns of political processes and behaviors and their consequences, and analyze and interpret basic data pertinent to U.S. government and politics. Extensive writing and outside readings will be required of each student. Students are encouraged to sit for the College Board's Advanced Placement United States Government and Politics Examination.

Prerequisites and other notes: Fulfills the graduation requirement for a course in Government

### UNITED STATES HISTORY

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

### HONORS UNITED STATES HISTORY

Course #: 100318 (Honors) 1 credit "Y"

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 #: 100419 (AP) 1 credit "Y"

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: Fulfills the graduation requirement for a course in United States History.

### WORLD HISTORY

Course #: 102111 (Basic)	1 credit
102116 (Academic)	1 credit †
<b>HONORS WORLD HISTORY</b>	
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 #: 102119 (AP)	1 credit †
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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 (Will be offered 2012/2013, will not be offered 2013-2014)**

Course #: 100719 (AP)	1 credit †
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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: A course in World History is recommended for students who want to prepare for AP European History.

### **AMERICAN REVOLUTION/CIVIL WAR**

Course #: 103006 (Academic)	½ credit †
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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 †
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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 †
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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.

## **POLITICAL SCIENCE**

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 #: 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.

## **AP MACROECONOMICS** (*Will not be offered in 2012-2013, will be offered in 2013-2014*)

Course #: 105419 (AP)      1 credit    ¶

AP Macroeconomics provides students an in-depth study of the fundamental concepts pertaining to scarcity and opportunity costs. Students will study comparative advantage in order to ascertain the basis on which mutually advantageous trade can exist between countries, in addition to the recognition of comparative advantage from differences in output levels and labor costs. Additional basic concepts to be investigated will include the functions executed by an economic system and how the tools of supply and demand can be utilized to analyze a market economy. Students are encouraged to sit for the College Board's Advanced Placement Macroeconomics Examination.

Prerequisites and other notes: Completion of Economics is preferred.

## **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. Honors Psychology is recommended for students who want to prepare for AP Psychology.

## **AP PSYCHOLOGY**

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 Honors Psychology I preferred.

### **AIDE IN SPECIAL EDUCATION**

Course #: 951106 (Academic) ½ credit  
951116 (Academic) 1 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                      956911 (Basic) General Tutorial 1 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**

### **ADVANCED DESIGN APPLICATIONS**

Course #: 450316 (Academic) 1 credit

This course is comprised of four core technology and engineering units: Manufacturing Technologies, Energy and Power Technologies, Construction Technologies, and Transportation Technologies. Students participating in the course learn concepts and principles in an authentic, project-based learning environment utilizing Science, Technology, Engineering, and Mathematics (STEM) principles through hands-on applications and research.

Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit. When combined with Building Maintenance I, this course is part of the Building Maintenance completion program.

### **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.

### **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. Graphic Communications is part of the Print Production, Video Production, and Media Communications Technology completer programs.

### **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, 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.

Prerequisites and other notes: This course partially satisfies the advanced technology credit. Script Writing and Video Production is part of the Video Production and Media Communications Technology completer programs.

### **TECHNOLOGICAL DESIGN**

Course #: 451216 (Academic) 1 credit

Students in this course apply Science, Technology, Engineering, and Mathematics (STEM) concepts and skills to solve and innovate engineering designs. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics. The course is comprised of five instructional units that focus on the following technologies: power and energy, mechanical, fluid, thermal, electrical, communication, manufacturing, construction, and transportation.

Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit. When combined with Building Maintenance I, this course is part of the Building Maintenance completer program.

### **TECHNOLOGICAL ISSUES AND IMPACTS**

Course #: 451116 (Academic) 1 credit

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 issues regarding technological development, weighing the trade offs between the positive and negative effects.

Prerequisites and other notes: Foundations of Technology. This course partially satisfies the advanced technology credit.

## **WORLD LANGUAGES**

### **ESOL**

Course #: 058306-I (Academic)	½ credit
058316-I (Academic)	1 credit
058406-II (Academic)	½ credit
058416-II (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 "Y"

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 "Y"

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 "Y"

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 "Y"

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.

## **GERMAN I**

Course #: 703016 (Academic) 1 credit "Y"

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 "Y"

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 "Y"

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 "Y"

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 "Y"

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.

#### **LATIN I**

Course #: 701016 (Academic) 1 credit "Y"

Latin I is designed to introduce students to the world of ancient Rome and expose them to the parallels that exist between that ancient culture and their modern one. In addition to basic pronunciation rules and grammatical concepts, students learn vocabulary derivatives and word etymology. Daily life in ancient Rome and Roman mythology are explored by reading and translating Latin stories on these topics. This course may assist students to perform better on the verbal portion of the SAT, as well as aid them with understanding terms encountered in a number of other classes.

#### **LATIN II**

Course #: 701116 (Academic) 1 credit "Y"

In this course, students continue to increase Latin and English vocabulary, knowledge of mythology and Roman life, and understanding of Latin grammar. Students also learn the meaning of the many Latin phrases encountered in law, science, logic, and literature. Through selected readings, students learn more about various aspects of Roman history and civilization.

Prerequisites and other notes: Successful completion of Latin I.

#### **HONORS LATIN III - PROSE**

Course #: 701418 (Honors) 1 credit "Y"

This course has two purposes: To prepare students to perform satisfactorily on the SAT2 test in Latin and to give them reading readiness for the AP exams. In this course, students complete their study of Latin grammar and apply the grammar they have been learning to reading selections from Latin literature. Students read selections from various authors including, but not limited to, Eutropius, Cicero, Asconius, and Pliny. Through their reading, students learn much about the forces bringing about the end of the Republic, and about important events taking place during the Empire, such as the eruption of Vesuvius, the capture of Jerusalem, and the rise of Christianity. They learn the format of Roman letters and how the Romans waged war. They also get a first-hand glimpse of what it was like to be alive during the Civil War between Caesar and Pompey. Students learn the format of Roman speeches and techniques for improving their own speeches. Students also practice taking exams similar to the SAT II to help them get used to its format.

Prerequisites and other notes: Successful completion of Latin II.

#### **AP LATIN – VERGIL**

Course #: 701219 (AP) 1 credit "Y"

In this course, students read the sections of the Aeneid required for successful performance on the AP examination for Vergil as well as additional selections as time permits. Students gain much knowledge about Epic poetry, and about poetic devices and figures of speech encountered in both Latin and English poetry. They also practice written scansion and oral reading of selected passages. Students also demonstrate an understanding of the influence which the Aeneid has had on English poetry. Students practice writing essays and answering questions similar to those they will encounter on the AP examination and are encouraged to sit for this exam.

Prerequisites and other notes: Successful completion of Latin III or teacher approval.

### **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 LANGUAGE**

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.

### **AP SPANISH LITERATURE**

Course #: 701819 (AP) 1 credit

This course is designed to provide students with a learning experience equivalent to that of a third-year college course in Peninsular and Latin American literature. The course is designed to introduce students to the formal study of a representative body of Peninsular and Latin American literary texts. Students should read authentic editions (abridged or translated versions are not appropriate) of all the works on this list, except where choice is indicated. The periods of study are:

- Medieval and Golden Age Literature
- Nineteenth-Century Literature
- Twentieth-Century literature

Prerequisites and other notes: Successful completion of AP Spanish language or teacher permission.

### **AMERICAN SIGN LANGUAGE I**

Course #: 719306 (Academic) ½ credit ¶

In this course, students will develop skill in the use of sign language, beginning with contact signing and working toward proficiency in American Sign Language (ASL). Students will be able to communicate, explore different facets of deaf culture, and identify forces that have shaped education of the deaf in the U.S. The format of classes will vary: lectures, videotape, practical experience, and student projects. All cultural and other relevant material will be integrated with the instruction of language skills.

### **AMERICAN SIGN LANGUAGE II**

Course #: 719406 (Academic)      ½ credit    Y

This course further develops skills in the context of American Sign Language. In this course, students will learn to use the vocabulary and syntax of a language very different and separate from English. They will also explore in more depth the American Deaf Culture as a distinct cultural minority in our society. The lesson structure revolves around active student participation and interaction in order to develop greater proficiency in ASL. Lectures, videotapes, guest speakers, and student projects will provide experience and information about Deaf Culture and deaf people's experiences. This course is for students serious about pursuing ASL beyond the introductory level and will prepare them for further study and proficiency.

Prerequisites and other notes: ASL I is a prerequisite.

### **AMERICAN SIGN LANGUAGE III**

Course #: 719416 (Academic)      1 credit    Y

This is a one credit course intended for students who can demonstrate mastery of the skills presented in ASL. ASL continues vocabulary development while focusing intently on the structure and grammar of American Sign Language. In order for the students to properly assimilate the rules and syntax of ASL, this class is taught exclusively in ASL. Students will also continue to broaden their knowledge of Deaf culture through selected readings, videotapes, field trips, guest speakers, and student projects.

Prerequisites and other notes: ASL II is a prerequisite. Ten (10) service-learning hours may be earned.

### **AMERICAN SIGN LANGUAGE IV**

Course #: 719616 (Academic)      1 credit

This course is intended for students who demonstrate mastery of the skills presented in ASL III and who may be interested in pursuing a career in sign language or Deaf studies. ASL IV continues vocabulary and grammar development of the language by emphasizing the narrative and conversational skills necessary to explain ideas and concepts. In order for the students to properly assimilate the rules and syntax of ASL, this class is conducted exclusively in ASL. A high level of English proficiency is expected when written assignments are required.

Prerequisites and other notes: Successful completion of ASL III.

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Administrative Services	Completer	Business Operations	40
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Academy of Health Professionals	Completer	Science	46
Animal & Veterinary Science	Completer	Science	47
Auto Service Technology	Completer	Technical	66
Biomedical Sciences / PLTW Endorsement	Completer	Science	48
Building Maintenance	Completer	Technical	66
Business Administration & Management	Completer	Business Operations	41
Carpentry	Completer	Technical	67
CISCO Networking Academy	Completer	Technical	68
Collision Repair Technology	Completer	Technical	69
Computer Science & Systems Analysis	Major	Science	51
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Cosmetology	Completer	Social Services	58
Culinary Arts	Completer	Social Services	58
Drafting	Completer	Technical	69
Drama	Major	Arts	29
Early Childhood Education	Completer	Social Services	59
Economics	Major	Science	51
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Electrical Construction	Completer	Technical	70
Emergency Services Technology	Completer	Social Services	60
Engineering Technology/PLTW Endorsement	Completer	Technical	70
Environmental Health	Major	Science	52
Family & Consumer Studies	Major	Social Services	61
Financial Services/AOF Endorsement	Completer	Business Operations	42
Floral Design	Completer	Arts	26
Food & Nutrition Science	Major	Science	52
Food Service & Hospitality Management/ProStart	Completer	Social Services	60
Geographic Information Systems & Technology	Completer	Science	49
Graphic Communications	Major	Arts	29
Heating, Ventilation, Air Conditioning	Completer	Technical	71
Heavy Equipment & Truck Technology	Completer	Technical	71
History	Major	Science	53
Horticulture	Completer	Science	49
Hospitality & Tourism	Major	Business Contact	35
Human Resources Management	Major	Business Operations	43
Humanities & Classical Studies	Major	Arts	30
Industrial & Product Design	Major	Arts	30
Information Systems Management	Major	Business Operations	44
International Business	Major	Business Contact	36
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Landscaping Design & Construction	Completer	Technical	72
Law & Legal Services	Major	Social Services	61
Library & Media	Major	Social Services	62
Life Science	Major	Science	54
Manufacturing & Machine Technologies	Completer	Technology	72
Marketing	Completer	Business contact	34
Masonry	Completer	Technical	73
Mass Communications	Major	Business Contact	36
Mathematics	Major	Science	54
Media Communication Technology	Completer	Arts	26
Music Performance	Major	Arts	31
Operations Management	Major	Business Operations	44
Physical Science	Major	Science	55
Print Production	Completer	Arts	27
Public Relations	Major	Business Contact	37
Social Science	Major	Science	55
Social Work	Major	Social Services	62
Sports & Recreation	Major	Social Services	63
Textiles & Fashion Careers	Completer	Arts	27
Urban & Regional Planning	Major	Social Services	63
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