



Course of Studies Bulletin 2012-2013

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Dear Parents and Students:

The registration process is the first step toward planning for the next school year. Once students have registered, we will use their course choices to develop a master schedule and allocate staff for classes. **For this reason, any changes to course requests must be made by May 4, 2012.** Requests for changes made after this deadline will not be honored except in rare circumstances. Students should think carefully about their educational program and make careful decisions at this time. This consideration includes the selection of honors and AP courses. Students are advised to think about balance in choosing their courses because they will not be able to drop an honors or AP course if there is not room in the desired course they'd like to change to.

The Walt Whitman Course Bulletin contains a calendar of registration activities and the list of courses proposed at Whitman for the 2012-2013 school year. All courses are offered subject to sufficient student enrollment and staff allocation. In addition, you can look up our course offerings online at:

<http://www.montgomeryschoolsmd.org/curriculum/coursebulletin/> You should choose "school course catalogs" on the left navigation bar. Then you choose "Walt Whitman High School" to see our course offerings. We encourage you to use the worksheet feature on the website and print your worksheet in preparation for your registration meeting with your counselor.

Please read and use the online course bulletin during registration. Guidance counselors, resource teachers, and department chairpersons will be happy to advise and assist you throughout this process.

Sincerely,



Alan S. Goodwin
Principal

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PREFACE

The 2012–2013 MCPS High School Course Bulletin provides students and parents/guardians with information about high school courses, programs, and career pathways. It includes specific requirements for graduation, as well as information about assessments, internships, opportunities for dual enrollment in college, and special programs.

Montgomery County Public Schools (MCPS) high school students experience various academic, extracurricular, and community activities that provide a wealth of opportunities that clarify interests, goals, and plans for the future.

Course selection in high school is critical to the realization of career and higher education goals. Students make appropriate academic decisions when their choices relate the courses they take in high school to college and career plans for the future. Students should talk to their teachers and school counselor about the courses needed to meet their individual goals.

The 2012–2013 MCPS High School Course Bulletin is reorganized to reflect better the changes in the Office of Curriculum and Instructional Programs (OCIP). All courses are categorized as Arts and Humanities or Science, Technology, Engineering, and Mathematics courses. Career pathways have been added to appropriate content areas and a new category of courses has been added, Entrepreneurship, Finance, and Information Technologies. Additionally, the Foundations Program will have courses listed under its own program heading for the first time in this bulletin.

The 2012–2013 MCPS High School Course Bulletin contains brief descriptions of all approved courses offered in MCPS. Students and parents should work together to review the course offerings provided, the graduation requirements, and other information in this bulletin. Additional information appears in the following MCPS regulations and policies: MCPS Regulation ISB: High School Graduation Requirements; Regulation IKA: Grading and Reporting; Policy IKA: Grade Point Averages (GPA) and Weighted Grade Point Averages (WPGA); MCPS Policy IED: High School Policy; Policy IGA: High School Core Courses; Policy IOA: Gifted and Talented Education; and Regulation IOA-RA: Gifted and Talented Education. These are available in all school counseling offices and media centers, as well as on the MCPS website www.montgomeryschools.org/departments/policy/. MCPS offers several hundred interesting and rewarding courses that help prepare students for the demands of the postsecondary world of college and careers. However, no one school can offer all of the courses described in this bulletin.

INTRODUCTION

Maryland Diploma Requirements

The state of Maryland authorizes one diploma for all high school graduates, based upon successful fulfillment in four categories of requirements: enrollment, course credit, student service learning (SSL), and Maryland assessments. MCPS requirements that extend state requirements are designated below with a double asterisk (**).

Enrollment

Students must satisfactorily complete four years beyond Grade 8. (For exceptions, see Alternatives to Four-Year Enrollment.)

Course Credits

A student shall be enrolled in a Montgomery County public school and have earned a minimum of 22 credits (unless a preapproved MCPS alternative is satisfied) that include the requirements shown in the table, MCPS Graduation Requirements at a Glance.

MCPS GRADUATION REQUIREMENTS AT A GLANCE

English	4 credits		
Fine Arts	1 credit (Selected courses in art, dance, drama/ theater, and music that satisfy the fine arts requirement are marked FA)		
Health Education	0.5 credit		
Mathematics	4 credits** (1 algebra credit, 1 geometry credit) Students who successfully complete a calculus course may be exempted from this 4-credit requirement.		
Physical Education	1 credit		
Science	3 credits (1 biology credit and 1 physical science credit must be included)		
Social Studies	3 credits (1 U.S. History credit; 1 World History credit; and 1 National, State, and Local Government credit)		
Technology Education	1 credit (Courses in career and technology education that satisfy the new technology education requirement have changed. Specific information is available in the appendices of this bulletin.)		
	OPTION 1	OPTION 2	OPTION 3
Electives: The additional credits required for graduation may be fulfilled by one of the these three options	2 credits in a foreign language OR 2 credits in American Sign Language AND 2.5 credits in elective courses	2 credits in advanced technology education AND 2.5 credits in elective courses	4 credits in a state-approved career and technology program AND 0.5 credit in elective courses
Student Service Learning (SSL)	Students must meet established service-learning requirements		
Graduating Classes of 2009 and Later—Assessment Requirements			
High School Assessments	Students must pass the Maryland High School Assessments for English, Algebra/data analysis, and Biology (see Assessments below for more information). For the most recent information on the requirements visit the website www.hsaexam.org/about.html		

Student Service Learning (SSL)

The SSL program in MCPS promotes a culture of student involvement and student responsibility through civic engagement. Service learning is a graduation requirement in Maryland. The number of service-learning hours needed for graduation, based on the date of original enrollment in MCPS, varies for individual students. Beginning with the class of 2011 MCPS students will complete a minimum of 75 service-learning hours for graduation. The graduating classes prior to 2011 must complete a minimum of 60 service-learning hours for graduation. The specific SSL hour requirement and other SSL information is shown at www.mcpsssl.org. MCPS students begin fulfilling this requirement the summer after Grade 5 and continue to accrue SSL hours through high school. Students who earn 260 or more SSL hours receive a Certificate of Meritorious Service at the time of graduation. Preparation, action, and reflection are the three phases of service learning that distinguish SSL from traditional volunteering and community service efforts.

Service learning hours are earned as follows:

- ❖ School Courses
- ❖ Successful completion of specific courses identified in this Course Bulletin where an individual completes the three phases in SSL activities that achieve curricular objectives.
- ❖ School Clubs
- ❖ Fully participating and completing the three phases of service learning in activities promoted by school-sponsored clubs and organizations.
- ❖ Community Organizations and Opportunities (must be preapproved for SSL)

Fully participating with community organizations identified as “Approved SSL MCPS” and opportunities identified, “MCPS SSL Approved” in the activity title at the website www.mcpsssl.org or by having MCPS Form 560-50, Request for Student Service Learning Preapproval granted prior to earning hours with organizations and opportunities that are not tagged as MCPS SSL- approved at the website.

All activities for which SSL hours are desired must occur in a public place, be secular in nature, and be supervised by a representative from a nonprofit, tax-exempt organization. Parents and relatives may not directly supervise a student. One SSL hour is awarded for every hour of service outside of the instructional day, with a maximum of 8 hours in a 24-hour period. MCPS Form 560-51; Student Service Learning Activity Verification, is required to document all activities for which SSL hours are desired. For individual SSL questions, contact the SSL coordinator in any middle or high school. See Appendix at the end of this bulletin for frequently asked questions concerning SSL.

Maryland High School Assessments (HSA)

Maryland High School Assessments are end-of-course tests related to MCPS courses Algebra 1, Biology, English 10, and NSL Government. All students enrolled in any of the HSA courses are required to take the HSA at the end of the course. The Maryland State Department of Education (MSDE) has designed the tests to measure student achievement and school performance, providing valuable information to students, parents, and schools. The Maryland State Board of Education established passing scores for the four High School Assessments (Algebra/Data Analysis, English, Government, and Biology) in June of 2004 and made passing the High School Assessments a graduation requirement for the graduating class of 2009 and after. www.hsaexam.org/about.html. The Maryland State Department of Education has developed safeguard options to support students:

Combined Score Option—Achieve a combined total score of 1602 points on all four tests

External Test Option—The state has set passing scores for identified alternative external tests, such as an AP or IB test in an HSA-related content area, that may be used to meet the HSA requirement. These identified assessments exist in all four content areas. Please see the website below for specific information on acceptable external tests and external scores required to meet the HSA requirement. As established by the state, a student using this option to meet the requirement for any HSA content assessment will receive the lowest passing score for the related test. This score is used in all calculations associated with meeting the HSA requirements.

www.hsaexam.org/img/bridge_plan/Bridge_Over_Feb08.pdf

Modified Testing Option—A modified HSA (MOD-HSA) test option is available for students who meet the criteria established by the state. The passing scores for these tests mirror the scores for the HSA. www.hsaexam.org/about/options/mod_hsa.html

Bridge Plan Option—The state has also adopted the Bridge Plan for Academic Validation (BPAV) to offer an alternative way to meet the graduation requirement. Students and/or parents interested in pursuing BPAV should contact the local school to review whether they meet requirements for participation in this plan, www.mdbridgeplan.org/. To meet the HSA Graduation Requirement a student must

- PASS means students must meet or exceed the lowest passing score on all the High School Assessments OR
- A student may use the following options or a combination of options to support meeting the graduation requirement :
- Achieve at least the combined total score of 1602 for all four assessments

- Use one or more MOD-HSA score toward PASS scores or the combined total score option
- Meet the required achievement score on one or more external test recognized by the Maryland State Department of Education toward PASS scores or the combined total score option
- Successfully complete an approved BPAV alternative to testing to be used in conjunction with PASS scores earned in content areas where the BPAV alternative is not used to meet requirement.

For details, visit www.hsaexam.org/index.html or contact the MCPS Office of High School Instruction and Achievement, 301-517-5007; or contact your local school.

MARYLAND SCHOOL ASSESSMENTS (MSA)

The Maryland School Assessments provide educators, parents, and the public with valuable information about students, schools, school systems, and state performance. The tests meet requirements of the federal No Child Left Behind Act (ESEA ACT). High school students meet the reading and mathematics MSA requirements through HSA/MSA combined assessments in Algebra 1 and English, Grade 10. These assessments are administered when the student completes that course of study. For details, visit the MSDE website www.marylandpublicschools.org, or contact your local school.

MARYLAND CERTIFICATE

Maryland High School Certificate

This certificate is awarded to students with disabilities who do not meet the requirements for a diploma but who meet one of the following criteria:

1. The student is enrolled in a special education program for at least four years beyond Grade 8, or its age equivalent. The student is determined to have developed appropriate skills for the individual to enter the world of work, act responsibly as a citizen, and enjoy a fulfilling life by an Individualized Educational Program Team (IEP Team), with agreement of the student's parents/guardians. The world of work includes but is not limited to-
 - gainful employment,
 - work activity centers,
 - supported employment, or
 - sheltered workshops

2. After being enrolled in a special education program for four years beyond Grade 8, or its age equivalent, the student reached age 21.

Montgomery County Public Schools Certificate of Merit

In addition to the Maryland high school diploma, students who meet the following requirements may be awarded the Montgomery County Public Schools Certificate of Merit (a diploma endorsement):

a. Advanced Courses

At least 12 credits must be earned in advanced courses identified by MCPS as applicable to the Certificate of Merit. A CM in course listings in this bulletin designates courses that satisfy these requirements.

b. Mathematics Requirement

Successfully complete, receive credit for the MCPS Algebra 2 course.

c. Cumulative Grade Point Average

Students must obtain at least a 3.0 unweighted cumulative grade point average.

All Certificate of Merit courses must be taken for a letter grade.

COURSES AND CREDITS

Each high school is responsible for providing a comprehensive program for every student. The Basic Core of Courses offered in every high school is composed of two categories:

- Category 1 courses must be offered and given in each high school, regardless of course enrollment, except that they may be offered and given in alternate years or in combined classes when enrollment is less than 15.
- Category 2 courses must be offered and given in a high school when the enrollment in that course is 15 or more.

All high school courses are one semester in length. All courses satisfying graduation requirements must be taken for a letter grade. The student earns credit in each course taken upon completion of each semester's work— 0.5 credit for successful completion of a single-period course, 1 credit for a double-period course, and so on. Yearlong courses usually have the same name for the two semesters, with the title of the first semester followed by "A" or "1" and the second by "B" or "2." Yearlong courses are usually sequenced to begin in the fall with "A" or "1." High School Credit for Middle School Students.

High school credit is awarded to students who complete yearlong high school courses while in middle school, after the student has passed both semesters of the course and passed the semester B high school final examination. Credit is awarded only after the student has begun to attend an MCPS high school as a ninth grade student.

Honors, Advanced Placement, and Advanced-level and International Baccalaureate Courses

Honors, advanced-level, Advanced Placement (AP), and International Baccalaureate (IB) courses provide rigorous and challenging studies for students who are capable of or motivated to pursue rigorous and challenging instruction. Typically, students enroll in individual Honors, advanced-level, and AP courses and not in a program as a whole. Students seeking an external curriculum diploma, such as the IB program, or participating in local school certificate programs must meet the requirements of that program in addition to the requirements for graduation in MCPS.

Honors Courses

Honors courses include course work in art, computer science, English, foreign languages, mathematics, music, science, and social studies. The curriculum in each Honors course includes appropriate adaptations for accelerated and enriched learning for pursuing in-depth studies that require abstract and higher-order thinking skills. Honors courses provide expectations and opportunities for students to work independently at an accelerated pace, to engage in more rigorous and complex content and processes, and to develop authentic products that reflect students' understanding of key concepts. Under special circumstances in designated courses, a cluster of students may pursue honors level work in a regular-level class. To get credit for Honors work, students must enroll under the special Honors code included in the course description. Students in Honors, AP, and advanced-level courses are expected to maintain at least a C average. Students who receive a grade of D or E over two consecutive marking periods should be counseled and supported.

Advanced-level Courses

Advanced-level courses are based upon previous achievement in a sequence of study. Advanced-level courses are available in the following MCPS areas: Information Technology/Computer Science; Foreign Languages; Mathematics; Science. Additionally, advanced-level courses may be part of special countywide and local magnet, IB, and signature programs. Students should expect advanced-level courses to include appropriate adaptations for accelerated and enriched learning for pursuing in-depth studies that require abstract and higher-order thinking skills.

Advanced Placement Courses

MCPS has developed courses that meet College Board guidelines to accompany the Advanced Placement examinations. A qualifying score on an AP exam may give the student college credit or advanced standing in the subject in many colleges. These courses include concepts and skills that help prepare students for the AP exams. AP courses are available in the following MCPS content areas: Art; Computer Science; English; Foreign Languages; Mathematics; Music; Science; Social Studies. Please consult your school counselor for the titles of the courses offered at your school.

International Baccalaureate (IB) Diploma Programs in MCPS

The IB Diploma program is offered at

- Bethesda-Chevy Chase High School (for students in the B-CC area)
- Einstein High School (for students in the Downcounty Consortium)

- Richard Montgomery High School (for students countywide who are selected through a competitive application process during their Grade 8 year)
- Rockville High School (for students graduating in 2010 or later in the Rockville HS area).
- Springbrook High School (for students in the Northeast Consortium)
- Watkins Mill High School (for students in the Watkins Mill area)

The IB organization allows schools to develop their individual programs within their subject specifications. Each of these MCPS schools has individualized its programs by unique selections in the IB electives and languages. Local school course listings will indicate those courses unique to a given school. The IB countywide program at Richard Montgomery High School (RMHS) is designed for highly gifted students in Montgomery County and has an application process that occurs in Grade 8. Please refer to the Countywide Programs section of this bulletin for information on this special program. John F. Kennedy and Seneca Valley high schools are in the process of applying to provide the IB Diploma Program. Pending authorization, this program will be available at these two schools for students graduating in 2012 or later.

Criteria for Enrollment in Honors, Advanced Placement, and Advanced-level Courses

Principals ensure that all students who have the capability, motivation, or potential to accept the challenge of Honors, advanced-level, and/or AP courses will be accorded an opportunity to do so. Each semester, principals will convene their schools' Honors/AP Review Committee to review the participation of students in Honors, AP, and advanced-level courses to ensure consistent implementation of the Gifted and Talented Education Policy and the accompanying regulation. This multi-stakeholder committee is cochaired by the principal and a faculty member, and includes counselors, teachers, representative resource teachers/department chairs and staff who have expertise in special needs (e.g., ESOL and special education). The Honors/AP Review Committee also ensures that each school provides responsible open enrollment in Honors, AP, and advanced-level courses for every student who is capable of or motivated to pursue a rigorous program and higher-level course work. The committee documents the strengths that each student brings to Honors, AP, and advanced-level work and recommends a plan for outreach, nurturing, and support of potential candidates. A profile of student strengths can be determined by conducting a thorough review of the following multiple criteria:

Mastery of Course Prerequisites (grades of A, B, or C)

- Parent/guardian recommendations
- Standardized test scores, as appropriate
- Willingness to complete challenging assignments
- Student interest or motivation
- Teacher/counselor recommendations
- Work samples and portfolios

Schools will evaluate multiple criteria for each student, as no single criterion is to be used to exclude a student from pursuing Honors, AP, and advanced-level course work.

Prior to the start of each semester, guidance counselors notify all candidates for Honors, AP, and advanced-level courses regarding their enrollment.

Review Process for Enrollment in Honors, Advanced Placement, and Advanced-level Courses

Students who are not recommended for enrollment, but who still wish to be considered for Honors, AP, or advanced-level course placement should appeal in writing to the principal for a special review within 10 school days of notification.

LOCAL PROGRAMS AND COURSES

Downcounty Consortium

By action of the Board of Education, the Downcounty Consortium (DCC) was established, creating a partnership among five high schools in the downcounty region of Montgomery County—Montgomery Blair, Albert Einstein, John F. Kennedy, Northwood, and Wheaton. Downcounty Consortium students

and their parents participate in the school assignment process known as “Choice.” The Choice process allows each student to rank his/her preference for a high school among the five choices. Each student considers many variables when making a choice, including the academy offerings at each high school.

Based on the emerging research on high school improvement DCC high schools are developing small learning communities within their larger schools. Those communities include ninth grade teams and themed academies as part of a comprehensive high school curriculum. Themed academies provide students with opportunities to explore areas of interest through relevant courses and capstone experiences such as internships, senior research projects and college-level course work.

Northeast Consortium

The Northeast Consortium (NEC) began as a unique response to school assignment issues in the northeast area of Montgomery County. As a result, three high schools—James Hubert Blake, Paint Branch, and Springbrook— were affiliated into a consortium to serve the interests of all students living in the northeast area of Montgomery County. Students and their parents participate in the school assignment process known as “Preferred Choice,” in which each student ranks his/her preference for a high school from among the three choices.

While each student has many variables to consider when making his/her choice of high school, a significant factor is the academic offerings available at each of the three schools. Each campus offers a comprehensive high school curriculum as well as a distinctive “signature program.” Signature programs focus on a field of high interest to students of diverse abilities and achievement levels and incorporate these signature themes throughout the instructional program. Extensive research in education demonstrates that student achievement and school climate improve dramatically when students are able to select programs that are related to their interest.

Signature Programs

Twenty-three high schools have developed and implemented signature programs. A signature program integrates a specific focus or distinguishing theme with the skills, concepts, and instructional strategies of some portion of a school’s curriculum. The theme or focus becomes the vehicle for teaching the traditional comprehensive high school curriculum in a fresh, interesting, and more challenging way. Some high schools have implemented whole-school programs while other schools have implemented school-within-school organizational structures. The implementation of signature programs supports the process of raising achievement by allowing individual school communities to examine the academic needs of their students, with the goal of developing programs that enhance the learning process for all. Signature schools develop strategic plans to expand the number of students reached by the programs and improve instruction, communication, and stakeholder involvement.

COURSE-RELATED INFORMATION

Student withdrawals from Courses

A student-initiated withdrawal may occur when the student and parents/guardians determine that withdrawal will be beneficial to the student. The student’s withdrawal request must be approved by parents/guardians in writing, reviewed by the counselor, and discussed with the student to ensure that there is understanding of a possible delay in meeting graduation requirements that may result if the student withdraws from a course. The counselor’s recommendation is forwarded to the principal for approval or disapproval.

If a student withdraws from a course before the end of the fifth week (25 school days), no notation is made on the student’s permanent record card or report card. The request to withdraw must be made by the 25th school day.

If the student withdraws after 25 school days of the course, the date of the withdrawal and the achievement attained to the time of withdrawal will be entered on the report card and permanent record. Withdrawal grades are not used in computing GPA or WGPA. However, they are included to determine student academic eligibility for participation in extracurricular activities.

Alternative Provisions for Earning Credit

In addition to earning credits during the regular school day and year, credit may be earned through summer school, extended-day learning opportunities, work experience programs, online courses, and college

courses. Advance permission from the principal or designee is required in all cases involving alternative provisions for earning credit.

Specific provisions govern the use of each of these programs. It is critical that students and parents consider these programs carefully and consult school counselors in advance to obtain full information about any alternative means of earning credit and its advisability. In the case of online courses, the course must be recognized and the content of the course must meet MCPS content standards to be considered for credit.

Alternatives to Four-year Enrollment

As with alternative means of earning credit, specific provisions govern the use of alternatives to four-year enrollment. Guidance from counselors is critical and should begin far in advance. Permission of the principal is required in advance. The alternatives include early college admission programs or early admission to an approved vocational, technical, or other postsecondary school. The General Educational Development (GED) testing program, managed by the state of Maryland, is another alternative.

Attendance

A commitment to school attendance on the part of both students and parents/guardians is an essential component of a high-quality learning experience. Parents and school personnel are expected to do everything possible to ensure each student's regular attendance. Students should attend all scheduled classes and approved educational activities and are responsible for completing all assigned work on time. Students should be enrolled in a full-day program or spend a comparable period of time in an alternative program or activity approved by the student's parent/guardian and principal.

Grading and Reporting

Basis for Grading

Grades reflect student achievement based on what they know and are able to do, as defined by the MCPS curriculum. Students receiving services for limited English proficiency, special education, or 504 disabilities will be afforded all accommodations and modifications, as documented by English Language Learner (ELL) plans, Individualized Education Programs (IEPs), or Section 504 plans.

Procedures for Grading

Grading procedures will be applied consistently within and among schools. Grading practices must include clear and timely communication, alignment with curriculum, accurate reflection of student achievement, and fair representation of student performance. Grading practices must be fair and manageable and support effective teaching and learning.

Grades on report cards reflect academic achievement in relation to course expectations, as outlined in the Montgomery County Public Schools curriculum. Extra credit may not be used. Course-specific procedures for grading are defined, used consistently, and explained clearly to students and parents in writing at the beginning of a semester or school year.

A final evaluation activity is required at the conclusion of all courses. Semester examinations in specified courses are computed as 25 percent of the final grade for the semester and reported separately on the report card.

Reporting Student Progress

Teachers will provide students and parents with information about achievement throughout the marking period. This feedback may take several forms, including the following:

- Report cards
- Interims/progress reports
- Online grade reports (Edline)
- Parent conferences
- Informal methods of communication
- Teacher feedback

Credit/No Credit Grading Option

The Credit/No Credit grading option may be used only in courses not specifically required for graduation by the Maryland State Department of Education or MCPS. Credit/No Credit cannot be applied to a Certificate of Merit course.

Additional information about grading and reporting is available to students, parents, community members, teachers, and administrators on the MCPS website at www.montgomeryschoolsmd.org/info/grading/.

Grade Point Average (GPA) and Weighted Grade Point Average (WGPA)

Only course final grades and credit are reported on high school transcripts (A-E) are used in determining cumulative GPA and WGPA, in accordance with the procedures set forth in MCPS Regulation IKC-RA: Grade Point Averages and Weighted Grade Point Averages.

An additional quality point will be added to grades of A, B, and C in all Honors, Advanced Placement, and advanced-level courses only to determine WGPA. MCPS does not rank students.

Marking period averages (MPA) shown on report cards are not cumulative and cannot be averaged to establish a GPA/WGPA.

Academic Eligibility for Participation in Extracurricular Activities

Students must maintain a 2.0 marking period average (MPA), with not more than one failing grade in the previous marking period, in order to participate in extracurricular activities during the next marking period. The MPA is not the same as the GPA. (MCPS Regulation IQD-RA: Academic Eligibility for High School Students Who Participate in Extracurricular Activities.)

National Collegiate Athletic Association Eligibility Center

The National Collegiate Athletic Association (NCAA) established the Eligibility Center to serve as the authorizing group for the final review and approval of core courses for freshmen students who want to participate in intercollegiate athletics in NCAA Division I-A, I-AA, and II colleges and universities.

The NCAA Eligibility Center Approved Core Courses are identified in the course bulletin with the symbol NCAA. In all cases, the list of eligible courses available at the NCAA Eligibility Center website represents the final determination on acceptable core courses.

To learn more about NCAA Eligibility Center Approved Core Courses or about NCAA Freshmen Eligibility Standards contact the local school resource counselor and visit the NCAA Eligibility Center website at www.web1.ncaa.org/eligibilitycenter/common/

Taking Courses not Available at the Home School

Students wishing to attend a neighboring school for a course not available at the home school must apply through their home school counseling office. Courses are open to students on a space-available basis. Students/parents must provide transportation.

Career Pathway Programs and Technology Education Requirements

Career Pathway Programs (CPP) are state-approved programs that satisfy the career development graduation requirement and are marked with CPP. Each of these programs are designed to help students acquire the specialized knowledge, skills, attitudes, and work habits required for employment and postsecondary education. Each high school offers career development programs.

Students seeking to enroll in a CPP that includes a work-based learning component may be required by the employer or sponsoring organization to provide appropriate documentation that may include a social security number and/or proof of citizenship/green card. Please review program applications and CPP requirements carefully for specific work-based learning component guidelines.

Students participating in CPPs at locations other than their home schools are advised to consult with their school counselors to ensure that the proper amount of transportation time is allocated within their schedule.

Thomas Edison High School of Technology

Thomas Edison provides opportunities for students in CPPs that might not be available in their home schools. Registration packets are available from Thomas Edison and from local school counselors. Students

enroll in Thomas Edison programs through their home school and take courses at both the home school and at Thomas Edison. Bus transportation is provided.

Other Program Options

Schools not offering a particular CPP may request placement of a student in that program at another school. Efforts will be made to fulfill reasonable student requests for transportation. Students requesting a CPP at another school must complete MCPS form 565-6 and submit it to their home school counselor.

Technology and Advanced Technology Education Credit— Changes for the Class of 2012

In compliance with the Annotated Code of Maryland Regulation (COMAR) governing technology education instructional programs, students in the graduating class of 2012 will be required to take a state-approved course that meets all 20 COMAR standards for technology education and satisfies the high school graduation requirement in technology education.

The three courses meeting state approval and identified with the symbol T2 in the course bulletin are available at all high schools. A course that meets these criteria is being identified for students in Grade 8. The Foundations of Technology A/B course now is available to be taken online during summer school. Courses that satisfy the current technology education requirement for students graduating in the years 2009–2011 will be marked with a TE. Additional information about the technology education credit can be found in the appendix of this bulletin.

In addition to the technology education credit changes, COMAR also is modifying requirements for the advanced technology education credit courses. Students in the graduating class of 2012 and beyond who choose to complete their high school graduation requirement by successfully completing a technology education credit course followed by two advanced technology education courses will be required to take state-approved advanced technology education credit courses. Three new MCPS courses will meet the revised advanced technology education requirement; information about the first of these courses, Technological Design, will be available in the online version of the course bulletin.

Foundations Office Programs

The Foundations Office provides programs in partnership with three separate nonprofit educational foundations: automotive, construction, and information technology. Each provides a liaison between the business/ professional community and MCPS to promote and advance student education, training, and preparation for college and a full range of careers within the automotive, construction, and information technology industries. Additional information may be found at www.foundationsofce.org. All Foundation student programs provide opportunities to earn industry- recognized credentials and also provide entrepreneurial experiences.

Automotive Trades Foundation Programs are located at Damascus, Thomas Edison, Gaithersburg, and Seneca Valley high schools. Three student-run car sales per school year are held, selling more than 2,000 renovated vehicles to date. Students also donate one renovated vehicle yearly to a deserving Montgomery County organization.

Construction Trades Foundation Programs are located at Damascus and Thomas Edison high schools. Students design, construct, and market student- built houses; 36 houses have been built and sold thus far in Montgomery County.

Network Operations Programs are located at Clarksburg, Tomas Edison, and Rockville high schools. Students renovate, market, and sell donated computers to the community during three yearly sales. Students also donate a refurbished computer lab yearly to a deserving Montgomery County nonprofit organization.

Montgomery County Public Schools, Montgomery College and The University System of Maryland Partnership Programs

Programs for “College Ready” MCPS High School Students

“College ready” high school juniors or seniors may earn college credits while in high school through dual enrollment programs. Dual enrollment programs exist at select high schools between MCPS and Montgomery College, University of Maryland, College Park, University of Maryland, Baltimore County, and University of Maryland, University Campus. Students may enroll in college courses at their home high school or at the college campus during the school day. Credits for these courses are fully transferable to the

providing institution. Students must check with the college of their choice to ensure transferability at other institutions of higher education. Limited financial aid is available through the institutions' financial aid office to help pay tuition and fees. Dual enrollment programs are currently on the campus of 17 high schools. For information about dual enrollment programs contact your school counselor. Montgomery College early placement programs can be accessed by all MCPS students by contacting the college admissions office at 240-567-5000.

MC Ensembles Partnership Program

The MC Ensembles Partnership gives talented MCPS high school instrumental music students the opportunity to participate in the MC Symphony Orchestra or MC Wind Ensemble and empowers them to be service leaders in their community. For additional information, contact Dr. Jay Crowder, Music Department Chair, at 240-567-7554, or E-mail: jay.crowder@montgomerycollege.edu or speak with your instrumental music teacher.

Gateway to College Program at Montgomery College

The Gateway to College Program at MC serves high school students, 16–20 years old, for whom high school completion is at risk. To enroll, students must be significantly behind in credit attainment and have a GPA that is less than 2.0. Students attend classes on the college campus, simultaneously earning their high school diploma and an associate degree or certificate. For more information about the Gateway to College Program go to www.montgomerycollege.edu/Departments/mcmcps/gateway/, contact your school counselor, or contact Amy Crowley, Gateway to College at MC, Program Director, at **301-610-4052** or E-mail: amy.crowley@montgomerycollege.edu

College Credit Available at Montgomery College for MCPS Students Who Complete Career Pathway Programs

Graduates from Montgomery County Public Schools (MCPS) who successfully complete one of 38 career pathway programs may earn free college credit when receiving grades of “A” or “B” in courses articulated with Montgomery College (MC). Earned credits may be used toward an associate degree at MC. For more information regarding the MC articulated credit for career pathway programs, contact your school counselor. MC offers financial aid to help pay tuition and fees to students who qualify. To contact the Financial Aid Office at MC, please call 301-279-5000. If you have questions about the 38 MCPS career pathway programs, you may call 301-309-MCPS (6277) for information regarding career pathway programs or visit the website at www.montgomeryschoolsmd.org/departments/cte/. Please call MC at 301-279-5000 for college-related information and an application packet

Advanced Placement and Advanced Level Courses

6313/6314	Advanced Studio A/B	2114/2124	History, United States, Advanced Placement A/B
3310/3311	Algebra 2, Honors A/B		
3761/3762	Anatomy and Physiology A/B (BC)	2240/2241	History, World, Advanced Placement A/B
1899/1900	Arabic 3 A/B	2332/2333	Human Geography, Advanced Placement A/B
6456/6457	Art History, Advanced Placement A/B		
3641/3642	Biology, Advanced Placement A/B (BC)	1945/1946	Italian Language and Culture, Advanced Placement A/B
3651/3652	Biology, Advanced Placement A/B (DP) (BC)	1843/1844	Japanese 5 A/B
3452/3453	Calculus AB, Advanced Placement, A/B	1829/1830	Japanese 6 A/B
3491/3492	Calculus BC, Advanced Placement, A/B	1539/1540	Japanese Language and Culture, Advanced Placement A/B
3356/3357	Calculus with Applications A/B		
6385/6386	Ceramics/Sculpture 3 A/B	1819/1820	Latin, Vergil, Advanced Placement A/B
3751/3752	Chemistry, Advanced Placement A/B (DP) (PC)	3657/3658	Molecular Biology A/B (BC)
		3653/3654	Molecular Biology A/B (DP) (BC)
3741/3742	Chemistry, Advanced Placement A/B (PC)	3048/3049	Multivariable Calculus and Differential Equations A/B
1879/1880	Chinese 5 A/B		
1881/1882	Chinese 6 A/B	6547/6548	Music Theory and Composition, Advanced Placement
1929/1930	Chinese Language and Culture, Advanced Placement A/B	3837/3838	Physics B, Advanced Placement A/B (PC)
4200/4201	Computer Programming 1 A/B	3839/3840	Physics C, Advanced Placement A/B (PC)
2989/2990	Computer Programming 1 A/B	3851/3852	Physics, Advanced Placement A/B (DP) (PC)
2901/2902	Computer Programming 2, Advanced Placement Computer Science A/B	3841/3842	Physics, Advanced Placement A/B (PC)
		3350/3351	Precalculus, Honors A/B
2965/2966	Computer Programming 3, Advanced Topics in Computer Science A/B	2330/2331	Psychology, Advanced Placement A/B
		1153	Publications Editing, Layout, and Business Management
2315 t	Economics, Macroeconomics, Advanced Placement	1859/1860	Russian 5 A/B
		1861/1862	Russian 6 A/B
2316 t	Economics, Microeconomics, Advanced Placement	2225	Seminar in Peace Studies
		1715/1725	Spanish 5 A/B
3609/3610	Engineering Science A/B (SC)	1716/1726	Spanish 6 A/B
1015/1016	English Language and Composition, Advanced Placement, A/B	1759/1760	Spanish Language, Advanced Placement A/B
1017/1018	English Literature and Composition, Advanced Placement, A/B	1761/1762	Spanish Literature, Advanced Placement A/B
3659/3660	Environmental Science, Advanced Placement A/B (SC)	3320/3321	Statistics, Advanced Placement, A/B
		6486	Studio Art 2-D, Advanced Placement
3674/3675	Environmental Science, Honors A/B (DP) (SC)	6487	Studio Art 2-D, Advanced Placement
		6305/6306	Studio Art 3 A/B
3676/3677	Environmental Science, Honors A/B (SC)	6488	Studio Art 3-D, Advanced Placement
3864/3865	Forensic Science A/B (SC)	6489	Studio Art 3-D, Advanced Placement
1615/1625	French 5 A/B	6482	Studio Art Drawing, Advanced Placement
1616/1626	French 6 A/B	6484	Studio Art Drawing, Advanced Placement
1635/1636	French Language, Advanced Placement A/B	7829	Superintendent's Leadership Program
		7830	Superintendent's Leadership Program
1965/1975	German 5 A/B	7831	Superintendent's Leadership Program
1966/1976	German 6 A/B	7832	Superintendent's Leadership Program
2132/2145	Government, Comparative Government and Politics A/B, Advanced Placement	1152	Techniques of Advanced Journalism
2104/2105	Government, United States and Politics with NSL, Advanced Placement A/B		
2131	Government, United States Government and Politics, Advanced Placement		
2938/2939	Guided Research—National Academy Foundation A/B		
2216/2217	History, European, Advanced Placement A/B		

REGISTRATION CALENDAR 2012-2013

Registration is a crucial decision-making process. Some of the factors that should be taken into consideration in making course selections include:

- Graduation requirements
- College prep considerations
- Degree of readiness for course under consideration
- Difficulty of total program

The Master Schedule for the coming year is based on student course selections made during the registration period; therefore, it is frequently impossible to honor schedule change requests that may be submitted at a later time.

GRADE 8

Orientation for students at Pyle – December 7 and 8, 2011.

Eighth Grade Parents Night: Whitman Auditorium on December 8, 2011 at 7:00 p.m.

Walt Whitman counselors will meet individually with Pyle parents to answer questions at Whitman (no appointment necessary) on December 12, 2011 from 7:30 a.m. – 11:30 a.m. (Snow Date: December 16)

Return registration materials—January 5, 2012

GRADE 9

Registration orientation – January 30, 2012 in English classes

Return registration materials – February 16 periods 1-8 in English classes.

GRADE 10

Registration orientation – February 2, 2012 in English classes

Return registration materials – February 23 periods 1-8 in English classes.

GRADE 11

Registration orientation – February 6, 2012 in English classes.

Return registration materials – February 27 periods 1-4 & February 28 periods 5-8

ESOL REGISTRATION

Orientation is the week of February 3, 2012 in ESOL classes. Return registration materials by February 13.

Schedule change requests for School Year 2011-12 must be made no later than Friday, May 4, 2012. Schedule Changes will not be made after that date.

Youth Scholars Program, University of Maryland

The University of Maryland's Young Scholars Program offers qualified high school students at Walt Whitman and Walter Johnson High Schools the opportunity to earn college credit from the University of Maryland. These college-level courses, offered fall and spring semester, are taught at Walt Whitman High School and Walter Johnson High School.

University of Maryland faculty provide challenging instruction in a dynamic classroom environment. Students have access to the University's on-line resources to further enrich their classroom experience. Students are expected to spend time outside the classroom working on projects, reading, and preparing for exams. Students are responsible for purchasing textbooks and course supplies.

High school students from Walt Whitman and Walter Johnson High Schools are recommended to participate in the Young Scholars Program by their high school principal. Program applications are submitted to the Office of Extended Studies, University of Maryland, for review and approval. Students are enrolled at the University of Maryland as non-degree seeking students and are subject to the rules and regulations that govern all Maryland students. Grades and credits earned are posted on the student's University of Maryland transcript.

The application for the Young Scholars Program, Fall Semester 2012, can be obtained by contacting your high school principal. A complete list of courses to be offered will be available in the guidance office.

Montgomery College

We are offering courses from Montgomery College at Walt Whitman during the 2012-2013 school year. The course fee will be about \$500 and will meet at Walt Whitman HS twice a week. Detailed course descriptions and an application can be picked up in the guidance office.

COURSE OFFERINGS**ART**

One Fine Arts credit is required for graduation. Refer to the MCPS County Course Bulletin for selected courses, which satisfy the Fine Arts requirement. Course fees will be published at a later date.

Course Title	Course No.	Notes
Foundations of Art A	6055	
Foundations of Art B	6056	
Studio Art 1A	*6105	
Studio Art 1B	*6106	
Studio Art 2A	*6205	
Studio Art 2B	*6206	
Studio Art 3A	*6305	
Studio Art 3B	*6306	
Studio Art AP A	*648200	(Admit by interview)
Studio Art AP B	*648220	(Admit by interview)
Studio Art AP A (Double Period)	*648400	1 credit (Admit by interview)
Studio Art AP B (Double Period)	*648420	1 credit (Admit by interview)
Ceramics 1A	6381	
Ceramics 1B	6391	
Ceramics 2A	*6383	
Ceramics 2B	*6393	
Ceramics 3A	*6385	
Ceramics 3B	*6386	
Advanced Studio Ceramics A	*631302	
Advanced Studio Ceramics B	*631402	
AP Studio Art 3D	*648810 (sem 1) *648820 (sem 2)	
Commercial Art 1A	6401	
Commercial Art 1B	6411	
Commercial Art 2A	*6403	
Commercial Art 2B	*6413	
Adv. Studio Commercial Art A	*631301	
Adv. Studio Commercial Art B	*631401	
Photography 1A	6345	
Photography 1B	6346	
Photography 2A	*6347	
Photography 2B	*6348	
Adv. Studio Photo A	*6313	
Adv. Studio Photo B	*6314	
AP Studio Art 2D	*648610 (sem 1)	

Course Title	Course No.	Notes
AP Studio Art 2D	*648720 (sem 2)	
Digital Art A	*6496	
Digital Art B	*6497	
Art History A/B	6451/6452	
AP Art History A/B	*6456/6457	

Courses marked * count toward the Certificate of Merit

ART COURSES

Foundations of Art A/B

The Foundations of Art course is designed to develop basic skills in drawing, painting, design, sculpture, printmaking, and visual communication. Students will explore a variety of materials and methods to create art as well as to develop an appreciation and understanding of the visual arts as a fundamental aspect of history and human experience. These studies are linked with information about historically significant artists or periods of art. Career information is provided.

Studio Art I

Students will continue to study the principles of design and use the elements of art in drawing, painting, printmaking, and/or sculpture. Art masterpieces and work by contemporary artists will be referenced. Students will have the opportunity to exhibit their work. Ninth grade students may enroll in Studio Art 1 with a teacher's recommendation.

Studio Art 2

Prerequisite: Attainment of the outcomes of Studio Art 1 A/B.

Students concentrate on building a portfolio of work and a collection of sketches using a preferred medium and showing details of composition. Realistic, abstract, and nonobjective styles are studied.

Studio Art 3

Prerequisite: Attainment of the outcomes of Studio 2 A/B.

Students may concentrate on a medium and art form of their choice, using both assigned and self-selected subject matter. Students participate in group critiques and present their work in a portfolio. Students focus on the preparation and presentation of their artwork in a one-person show. Students participate in group discussions in which significant works of art and art history are analyzed. Museum field trips and talks with visiting artists and teachers may be arranged.

Ceramics & Sculpture 1 A/B

This course concentrates on basic hand-building and glazing techniques in clay. Students examine the compositional elements of 3-D design in historically significant pottery and sculptural forms. The course also focuses on the creation of sculptural art using a variety of other materials and techniques. An introduction to the potter's wheel will be presented in the second semester along with related health and safety issues.

Ceramics & Sculpture 2 A/B

Prerequisite: Attainment of the outcomes of Ceramics/Sculpture 1A/B.

Students learn about natural and historically significant forms as the basis for pottery and sculptural designs. The firing characteristics of basic glazes are studied along with additional techniques for throwing on the potter's wheel. Kiln theory and studio safety are explored as students learn to stack and monitor the kiln. A variety of surface treatments are examined as students begin to develop a sense of their own personal style.

Ceramics & Sculpture 3/Advanced Ceramics

Prerequisite: Attainment of the outcomes of Ceramics/Sculpture 2 A/B

Students study the works of contemporary potters and sculptors in terms of form, finish and conceptual statement. Students combine hand-built forms, thrown forms and found objects to create pottery or sculpture that make a personal statement. Students participate in group critiques. In the second semester,

students create a series of forms that reflect a common source or theme. Techniques for displaying work are demonstrated in student exhibits.

Commercial Art 1 A/B

Commercial Art 1A/B is a course designed for students with special interest in color and design techniques using the Elements of Art and the Principles of Design. Students develop basic skills required for the design and production of advertising and promotional art. They create posters and receive lessons in illustration. Students may be able to study other graphic processes, including digital art, if time, equipment, and facilities allow.

Commercial Art 2 A/B

Prerequisite: Commercial Art 1 A/B, Foundations of Art, Studio Art, or by teacher recommendation.

Students enrolled in Commercial Art 2 A/B continue to develop skills in the Elements of Art and Principles of Design by producing poster designs for WWHS events and focusing on product and environmental designs. Students use professional drawing tools to produce finished artwork. Students may be able to study other graphic processes, including digital art, if time, equipment, and facilities allow.

Advanced Studio/Commercial Art

Prerequisite: Commercial Art 2 A/B, Studio Art 2, or by teacher recommendation.

Students enrolled in Advanced Studio Commercial Art concentrate on building a portfolio of work including promotional art, poster designs and a collection of product and environmental designs.

Digital Art

Prerequisite: Foundations of Art or Commercial Art or by teacher recommendation.

Students use the computer as a tool to produce artwork that simulates classic media as well as to create a variety of new techniques. Digital art, software, and computer processes are used. Emphasis will be placed on student projects incorporating the Elements of Design and Principles of Composition. Students discuss ethical and safety issues in the use of computers as an instructional tool. Students work to develop criteria for judgment of digital artwork. A portfolio of digital art is produced.

Photography 1A/B

This course requires students to provide their own 35mm SLR manual or manual/automatic combination camera. Students will learn how to use the camera, process black-and-white film and prints. Projects are assigned through which students demonstrate their sensitivity to subject matter, lighting, form, and composition. The chemistry of photography and the operation of a darkroom with reference to health and safety are learned.

Photography 2A/B

Prerequisite: Attainment of the outcomes of Photography 1 A/B or by teacher recommendation.

Advanced camera and darkroom techniques are demonstrated and discussed. Students continue studies in the history of photography, photographers, and technical developments. Composition and aesthetic criteria are stressed. Field trips to museums and to different area locations and opportunities for students to develop sophisticated photo-essays suitable for publication are provided.

Advanced Studio / Photography

Prerequisite: Attainment of the outcomes of Photography 2 A/B, or by teacher recommendation.

Students enrolled in Advanced Studio Photography concentrate on building a portfolio of work including bound publications.

Advanced Placement, Studio Art

Prerequisite: 2 credits in Visual Art, including Studio Art 1 A/B.

The AP Studio Art courses are designed for the highly motivated and able students who are seriously interested in the practical experience of art. The AP Studio Art program follows national standards for performance in the visual arts. The course consists of three main units.

The **drawing unit** is designed to address a very broad interpretation of drawing issues and materials. Light and shade, line quality, rendering of form, composition, surface manipulation, and illusion of depth are drawing issues that can be addressed through a variety of drawing and painting materials.

The **two-dimensional design unit** addresses a very broad interpretation of two-dimensional design and visual communication issues. This type of design involves purposeful decision-making about how to use the elements and principles of art in an interpretive way. These could include, but are not limited to, graphic design, typography, digital imaging, photography, collage, fabric design, fashion design, illustration, painting, and printmaking. A variety of approaches to representation, abstraction, and expression may be addressed.

The **three-dimensional unit** addresses a broad interpretation of sculptural issues in depth and space. These may include mass, volume, form, plane, light, and texture. Such elements may be articulated through additive, subtractive, and/or fabrication processes. A variety of approaches to representation, abstraction, and expression may be part of the student's portfolio. These might include traditional sculpture, architectural models, apparel, ceramics, three-dimensional fiber arts or metal work, among others. In the spring, students focus on one unit as they prepare a portfolio for assessment by AP evaluators.

Art History A/B (AP Art History A/B)

Students conduct a chronological overview of the major periods of world art with an emphasis on culture. They develop a timeline to associate major periods of art with significant historical events, crafts, and/or architectural achievements of various cultures. In the second semester, students compare major works of art in terms of a central theme or image. The role of the artist in society and the effect of political or technological influences are discussed.

(Advanced Placement credit for this course is available if students choose to take the AP test in May.)

Course descriptions are in the 2011-2012 High School course bulletin

<http://www.mcps.k12.md.us/curriculum/coursebulletin>

BUSINESS EDUCATION

Most courses listed are 1/2 credit per semester and are described in the online course bulletin. Course fees will be published at a later date.

Course Title	Course No.	Notes
Personal Finance	*4158	semester 1
International Business	*4136	semester 2
Business Internship A single period	7813	semester 1
Business Internship B single period	7816	semester 2
Business Internship A double period	7818	semester 1, 1 credit
Business Internship B double period	7819	semester 2, 1 credit
Business Internship A triple period	7822	semester 1, 1½ credits
Business Internship B triple period	7823	semester 2, 1½ credits

Personal Finance – Grades 9-12

Personal Finance is truly a course that is “ripped from the headlines” these days. It addresses the needs of the students as they prepare for financial independence. Topics include: financial goal setting, financial planning, career planning, budgeting, researching large purchases, price negotiation, choosing financial institutions, and the wise use of credit. The importance of saving and investing is emphasized. The students play the Stock Market Game /Finance Matters and get \$100,000 to invest to give them “hands on” experience. Speakers from the community are brought in to give a real-world perspective. A field trip to the New York Financial District is planned.

International Business – Grades 10-12

International Business focuses on the student as entrepreneur and requires an international business plan for an international start-up as a final project. Topics include: Global Economic Basics; Importing, Exporting and Trade Relations; International Currency Exchange, International Finance and the IMF and World Bank; and all of the aspects of Strategic International Business Planning. The students get a brief introduction to investing and will play the Stock Market Game with an emphasis on global investments. Speakers from the community are brought in to give a real-world perspective. A field trip to the New York Financial District is planned.

Business Internships A and B

Students may sign up for paid or unpaid Business Internships in local businesses and professional, career-focused organizations. Students may enroll for a single, double, or triple-period internship. There is an application process and students must get pre-approval for all work sites from Mrs. Marafatsos. Students must provide their own transportation.. The Career/College Research Development 1 Class (CCRD 1) is strongly recommended for intern students. (See Career Education for CCRD 1 course details)

Course descriptions are in the 2012-2013 High School course bulletin at <http://www.mcps.k12.md.us/curriculum/coursebulletin>

CAREER EDUCATION/COLLEGE –CAREER RESEARCH DEVELOPMENT

All students who register for Site Based Work Experience must also register for the College-Career Research Development(CCRD) appropriate course.

- Each course listed is ½ credit per semester unless otherwise stated.

Course Title	Course No.	Notes
College/Career Research and Development 1A (Open to all 10-12 th grade students)	8092	1st year CCRD/Interns
College/Career Research and Development 1B (Open to all 10-12 th grade students)	8093	1st year CCRD/Interns
College/Career Seminar	8065	2nd year CCRD students
College/Career Seminar	8066	2nd year CCRD students

CAREER EDUCATION/COLLEGE-CAREER RESEARCH DEVELOPMENT

College- Career Research Development

The College-Career Research Development (CCRD) consists of two parts: a one period class dealing with employment, consumer and marketing topics and site based work learning experience in the local business community. In the afternoon, CCRD students report to approved work sites for their sitebased training. Student training plans are developed cooperatively by the CCRD teacher, student, and the employer. Students must leave school immediately after their last scheduled class and have their own transportation. Due to flexible work schedules, students who are not reporting to work during assigned site based work experience periods are the parents' or guardians' responsibility. The CCRD Program is a state-approved career development program and students must earn four credits in CCRD to satisfy state requirements. Student Service learning hours can be earned by participating in various activities.

College/Career Research and Development 1

College-Career Research Development 1 offers students the opportunity to learn about the business world and career development. Students study topics relating to business such as budgeting, banking, investments, taxes, credit, insurance, consumer rights, job-seeking skills and job performance skills. Special emphasis is placed on career researching, shadowing, goal setting, interviewing techniques and resume writing. This class is appropriate for both college and work-bound students who want job experience, earn a salary, and earn credit. All **first year** CCRD students are required to register for this class. This class is open to the students 10-12th who want to get ready for their first job.

College/Career Research and Development Seminar 2

College-Career Research Development 2 offers students study in managerial responsibilities and entrepreneurship. Each student will complete a management-related project. All **second year** CCRD students are required to register for this class.

INFORMATION TECHNOLOGY/COMPUTER SCIENCE

- Lab fees will published at a later date. Each course listed is ½ credit per semester unless otherwise stated.

Course Title	Course No.	Notes
APPLICATIONS:		
Software Applications by Design A	8850	Open to grades 9-12,
Software Applications by Design B	8851	Open to grades 9-12,
PROGRAMMING:		
Computer Programming 1A	*2989 (TE 12)/ *8854	Prereq/co-requisite Geometry
Computer Programming 1B	*2990 (TE 12)/ *8855	Prereq: Course #2989
**Computer Programming 2A	*2901 (AT) (Advanced Placement)	Prereq: Course #2990
**Computer Programming 2B	*2902 (AT) (Advanced Placement)	Prereq: Course #2901
**Computer Programming 3A Adv. Topics in Computer Science	*2965 (AT)	Prereq: Course #2902
**Computer Programming 3B Adv. Topics in Computer Science	*2966 (AT)	Prereq: Course #2965
Computer Science Internship A	290700	Prereq: Teacher Rec
Computer Science Internship B	290701	Prereq: Teacher Rec

Courses marked * count toward the Certificate of Merit.

Courses marked ** are used as preparation for the AP exam.

COMPUTER SCIENCE COURSES

****None of these courses count for the technology education credit for students in the class of 2012, 2013, or 2014.**

Software Applications by Design A & B

Project based learning helps students prepare to take the Microsoft Office Specialist (MOS) certification core-level examination for Microsoft Word, Excel, Access, and Power Point. The students are also introduced to HTML and basic keyboarding skills. (Technology Education Credit)

***Prerequisite:** Attainment of the outcomes of Software Applications by Design A. Students who have already completed computer applications or business technology are not eligible to take these courses.*

Computer Programming 1A & 1B, Grades 9-12

Students will write programs using structured programming techniques to solve problems. This course introduces the fundamental principals of structured programming within the context of an object-oriented language. Emphasis will be placed on developing effective problem-solving techniques through individual and team project. Students use a problem-solving approach to implement one or more large programs using the C++ language. (Technology Education Credit)

***Prerequisite:** Geometry; **Co-requisite:** Honors Geometry*

Computer Science Advanced Placement

Advanced Placement Computer Science (APCS) courses are designed for students of high academic ability who have a strong interest in computer science and who want to prepare for the AP Computer Science A or AB examinations. A qualifying score gives the student college credit or advanced standing. The topics covered normally comprise up to six semester hours included in the first year of a computer science curriculum at the college level. Projects will require both rigorous problem definition and program implementation strategies and will be written in the Java programming language. The AP examinations will also be given in Java.

Computer Programming 2A & 2B (AT)

(Advanced Placement Computer Science)

Students use Java, an object-oriented programming language, to complete in-depth work with text files and arrays. Using existing object libraries for object-based programming, as well as developing their own objects, students will explore the power of an industry-standard programming language that is cross-platform and web-friendly. Emphasis will be placed on continuing the development of effective problem solving techniques individually and in project teams.

***Prerequisite:** Computer Programming 1B*

Computer Programming 3A & 3B, Advanced Topics in Computer Science, Grades 11-12 (AT)

Problem-solving techniques and adaptation or development of appropriate algorithms or data structures are studied. Students may take the AB version of the AP Computer Science exam upon course completion.

***Prerequisite:** Attainment of the outcomes of Computer Programming 2B*

Computer Science Internship

If interested, see the Computer Science Resource Teacher for internship possibilities. *Prerequisite: Teacher recommendation and coordinator permission.*

Course descriptions are in the 2011-2012 High School course bulletin at <http://www.mcps.k12.md.us/curriculum/coursebulletin>

ENGLISH DEPARTMENT

Four credits in English are required for graduation.

At Walt Whitman High School, the English Department offers all of the courses required for graduation as well as some honors electives. Required courses may be taken on two levels in the 9th and 10th grades: regular and honors. In the 11th and 12th grades, required courses may be taken on three levels: regular, honors, and Advanced Placement. The course work on all levels enables students to improve listening skills, to enhance speaking skills, to enrich vocabulary, to access literary nuance and to analyze literature, to develop writing skills, and to expand higher-level thinking skills. The English teachers, the English Resource Teacher, and the counselors work closely with students and parents to make certain that students enroll for the proper level of English courses.

Important Reminders:

- ❖ Students who are maintaining at least a B average in honors or AP English may continue in the Honors Program from year to year.
- ❖ Students entering Grade 9 will be placed in honors English classes on the recommendation of the middle school teacher with the approval of the English Department Resource Teacher. Placement changes may be recommended during the first quarter.
- ❖ Students who complete first years and wish to continue in second-year journalism courses must have teacher approval.
- ❖ Students who have passed the Intensive English Language Center (IELC) Exit Examination may register for regular English classes upon the recommendation of the Intensive English Language Center (ESOL) Resource Teacher.

The courses listed below are described in the on-line course bulletin, and each course listed is ½ credit per semester. One credit is required at each grade level. Course fees will be published at a later date.

Course Title	Course No.	Notes
Grade 9		
English 9A	1311	
English 9B	1312	
English 9A Honors	*1313	
English 9B Honors	*1314	
Grade 10		
English 10A	1321	
English 10B	1322	
English 10A Honors	*1323	
English 10B Honors	*1324	
Grade 11		
English 11A	1331	
English 11B	1332	
English 11A Honors	*1333	
English 11B Honors	*1334	
AP English Language & Composition A	*1015	
AP English Language & Composition B	*1016	
Grade 12		
English 12A	1341	
English 12B	1342	
English 12A Honors	*1343	
English 12B Honors	*1344	
AP English Literature & Composition A	*1017	
AP English Literature & Composition B	*1018	

Courses marked * count toward the Certificate of Merit

Required Courses

Grade 9	Grade 10	Grade 11	Grade 12
English 9A and English 9B	English 10A and English 10B	English 11A and English 11B	English 12 A and English 12 B
		OR	OR
		AP English Language & Composition A&B	AP Literature & Composition A&B

Elective English Courses

The courses listed below may not be taken for English credit. These courses may be taken for elective credit only and are ½ credit per semester.

Course Title	Course No.	Notes
Editing, Gathering, Reporting the News	1150	Grades 10-11, sem 1
Publications, Editing, Layout and Business	1151	Grades 10-11, sem 2
Management Advanced Newspaper writing and Newspaper Production (Black & White)	*1152	Grades 11-12, sem 1
Techniques of Advanced Journalism (Black and White)	*1153	Grades 11-12, sem 2
Advanced Composition A	*1130	Grades 10-12, sem 1
Advanced Composition Literary Magazine	*113001	Grades 10-12, sem 1
Advanced Composition B	*1135	Grades 10-12, sem 2
Advanced Composition Literary Magazine	*113501	Grades 10-12, sem 2
TV Production A	786000	Semester 1
TV Production B	786200	Semester 2
Whitman Shorts A (by application only)	786002	Semester 1
Whitman Shorts B (by application only)	786202	Semester 2
College Test Prep (Verbal/Math)	114201	Semester 1
	114202	Semester 2
Read 180 A and B	1139/1140	Single period
Academic Reading A/B	1160/1161	READ 180 Double Period
Yearbook (SAGA) A	*115201	
Yearbook (SAGA) B	*115301	

Courses marked * count toward the Certificate of Merit

Journalism Courses

Students who wish to be eligible for top editorial positions on the *Black & White* during their senior year and/or those interested in a career in communications should begin the sequence of journalism courses in their sophomore year. The Introductory Journalism class covers reporting, news, editorial, feature and sports writing, in addition to editing, design, production, ethics and First Amendment issues. Journalism students should have a commitment to honing their writing skills and a keen curiosity about the people, issues and events around them. **Those wishing to enroll in journalism classes must complete an application.** Enrollment is limited because of the staff size of the *Black & White*.

Advanced Composition

This course provides additional instruction for able students interested in creative writing enrichment beyond the required English program. Students may elect to focus on creative writing with special emphasis on the writing of poetry, drama, or short prose fiction or they may elect to explore a combination of writing types. In a supportive writing workshop setting, using portfolio and peer review, students explore areas of interest. The class provides opportunities for students to apply and extend their understanding of how to read as a writer and write as a reader. Guided in-depth instructions in small group settings provide regular feedback to help students evaluate and revise writing.

Advanced Composition Literary Magazine

Although a creative writing course at heart, this literary magazine course will incorporate a focus on the publication of literary work. *Eidolon*, the school's nationally recognized literary magazine will be produced, in part, through this class as well as potential new literary publications as developed by the students. Instruction in creative and expository writing, using workshop format, will complement magazine production activity. *Eidolon* editors and staff members or those who want to work on *Eidolon* are encouraged to take this class; however, all students are welcome.

Yearbook (SAGA)

An entirely student created publication, SAGA is the culmination of a year's preparation. Students who wish to participate on the yearbook in positions of writers, photographers and/or computer specialists must apply in the spring of the year before they wish to enter the class. The current staff members based on the applicant's skill in the pertinent area, and the ability to contribute to the yearbook. Editorial positions are granted to students with identified with leadership skills and at least one year of experience on the yearbook. No prerequisites are required, but applicants who have taken Photography or Journalism are considered more promising. **Enrollment is limited because of the class size.**

Whitman Shorts

Whitman Shorts is Walt Whitman's television news program.

Those wishing to apply for Whitman Shorts must complete an application process. Preference will be given to those who have completed either Media Literacy or Introduction to Journalism. **Enrollment for this program is limited.**

TV Production

Students study and produce a variety of television products, including short films, news, commercials, documentaries, music videos, and more.

College Test Prep: Verbal Preparation and Math Preparation

This one-semester course is designed to improve student achievement on the verbal and math components of the PSAT, SAT-1, and the ACT. Students acquire skills related to the test formats and develop test-taking skills related under simulated test conditions. Students are provided with individual and group feedback about individual needs based on these tests. They keep a record of their performance on practice tests and learn strategies for improving their individual scores.

Course descriptions are in the 2011-2012 High School course bulletin at <http://www.mcps.k12.md.us/curriculum/coursebulletin>

FAMILY AND CONSUMER SCIENCES

There are a variety of Family and Consumer Sciences courses at Walt Whitman. All courses are open to both males and females. Each course includes instruction and opportunities for "hands-on" laboratory activities.

The courses listed below are described in the course bulletin. One semester single period courses are .5 credits each and double period classes are 1.0 credits each. Course fees will be published at a later date.

FAMILY AND CONSUMER SCIENCES

Course Title	Course No.	Notes
Child Development 1A	4847	Grades 9-12
Child Development 1B	4848	Grades 9-12
Child Development 2A	*4880	Grades 10-12
Child Development 2B	*4881	Grades 10-12
Child Development 3A	*4882	Grades 11-12
Child Development 3B	*4883	Grades 11-12
Education Internship A 11-12	*488401	Semester 1, Grades
Education Internship B 11-12	*488402	Semester 2, Grades

Maryland Academy For Teacher Education At Walt Whitman High School

The Maryland Academy for Teacher Education (Education Academy) at Walt Whitman High School is an instructional program that aligns with the Interstate New Teacher Assessment and Support consortium (INTASC) and the Maryland Essential Dimensions of Teaching (EdOTs). The program prepares students for further education and careers in the education profession. The Academy program consists of courses that focus on human growth and development, teaching as a profession, learning theory, and curriculum and instruction. Students who elect to take all four courses may earn credits that are designed to articulate to a Maryland post secondary teacher education program. Upon completion of the Academy program and passing the ParaPro test, high school graduates are ready for employment in the teaching profession. This program is based on the outcomes of the Maryland Associate of Arts in Teaching (A.A.T.) degree which aligns with the National Council for the Accreditation for Teacher Education standards (NCATE). Students may elect to take all of some of the courses in the Academy.

Course 1: Child and Adolescent Development 1A, 1B

Course 2: Child and Adolescent Development 2A, 2B
(May earn 90-Clock Hour certification)

Course 3: Child and Adolescent Development 3A, 3B

Course 4: Education Academy Internship A, B
(May earn program completer.
May elect to take ED 101 and ED 102 for 4 college credits.)

Child and Adolescent Development 1 A/B

This course focuses on human development from birth through adolescence. In this introductory course students become part of a team of teachers for preschoolers in a lab school setting. Course content includes focus on physical growth and development, effective guidance techniques, behavior patterns, social and emotional development, and acquisition of intellect from birth through adolescence. Students participate in direct interaction with preschoolers. Study is enhanced through planning, observation, and research projects. Developmental psychologists studied include Maslow, Erikson, Freud, Adler, Montessori, Piaget, Skinner, Brazelton, Greenspan, and others. Exceptional experience is offered for students exploring future careers in education, administration, psychology, social therapy, children's literature and media, family law, and parenting. Students will begin to develop the components of a working portfolio to be assembled upon completion of either Child and Adolescent Development 2 (90-Clock Hour portfolio) and/or the Education Academy internship. Child and Adolescent Development 1 is the introductory course for the Education Academy. Grades 9 – 12. .5 credit per semester.

Service learning credit: *Students have the opportunity to earn up to 20 Service learning hours.*

Prerequisite for Child Development 1B: *Attainment of objectives for Child Development 1A*

Child and Adolescent Development 2 A/B

Students apply knowledge of physical, social, emotional, and intellectual development as they continue to develop teaching skills and assume leadership responsibilities in the lab setting. Student develop competence in creative teaching techniques, developmentally appropriate practice, program management, scheduling, meeting special needs of diverse populations, cooperative teamwork, and effective communication techniques. Students complete in-depth case studies and interact with parents of preschoolers. Applications of technology and employability skills are stressed. Upon completion of Child Development 2 and certification requirements, students may submit portfolios to earn certification in the 90-Clock Hour Program. This MSDE certification allows a student to obtain a senior staff position in licensed Early Childhood programs. Grades 10 – 12. .5 credit per semester.

Service learning credit: *Students have the opportunity to earn up to 20 Service learning hours. Successful completion of 1A, 1B, 2A and 2B enables students to apply for 90 Clock Hours Early Childhood Certification.*

Prerequisites: *Attainment of objectives of Child Development 1A and 1B and teacher approval.*

Child and Adolescent Development 3 A/B

Students continue to apply skills developed in Child and Adolescent Development 1 and 2 as they explore various career opportunities in this growing professional field. The student is self-directed through

independent work with daily contact and support from the Child Development teacher. A section of the course will involve understanding and working with the school-aged child. A portfolio will be developed that features the student's personal growth and emerging career plan. Students will be assisting at Kenwood Park Children's Center once a month. Grades 11 – 12. .5 credit per semester.

Service learning credit: *Students have the opportunity to earn up to 20 Service Learning Hours. Prerequisites: Attainment of the goals of Child Development 1 and 2 and teacher approval.*

Education Intern

The internship is the culminating course of the Education Academy program for the highly motivated student who wishes to extend experiences in the field of Education. Students will have an opportunity to integrate content and pedagogical knowledge in an educational area of interest. Students will extend and apply their knowledge about teaching in a classroom setting under the supervision of a mentor teacher for two or more periods a day at a field site. The students will complete their working portfolio and present it for critique. Concurrently with this course, 12th grade students may elect to take ED 101 and ED 102, Foundations of Education, taught by a professor from Montgomery College at Whitman during the first semester.

Students successfully completing this component of the Education Academy Internship will earn 4 college credits by December. During the spring semester, Education Academy interns may take the Praxis 1 exam, reporting scores to post secondary institutions, if they so desire. Students must provide their own transportation to field sites. Success in this course provides the opportunity for a career development completion credit OR credits that will articulate to a Maryland post secondary teacher education program. Grades 11-12.

Prerequisites: *Attainment of objectives of Child and Adolescent Development 1 and 2 and teacher approval.*

WORLD LANGUAGES DEPARTMENT

Either two World Language credits or two Advanced Technology Education credits satisfy the requirement for graduation.

The world languages program at Walt Whitman is designed to enable students to use oral and written language for meaningful and culturally appropriate communication in the situations they are most likely to encounter. The program helps students appreciate linguistic and cultural diversity as they acquire the knowledge, skills, and attitudes necessary for effective participation in an economically, socially, and politically interdependent world. Detailed descriptions of the various levels of world languages classes may be found in the MCPS Bulletin.

Two years of foreign languages study meet the graduation requirement in MCPS. A sequence of at least three years of a world language is recommended for a College Prep program; however, students are encouraged to continue their study of world languages until they have achieved a high level of proficiency. Levels 3 and 4 Spanish and French may be taken as regular or honors courses. Course offerings are subject to how many students are requesting the courses. Courses with low enrollments may need to be cancelled. Parents should contact the resource teacher, Pam Garcia, for information on placement.

Level 5 and all AP classes are part of the Honors Program Registration information for the Honors Program at Whitman is included in this bulletin. Students wishing to sign up for AP classes must have the signature/approval of the Foreign Language Resource Teacher, unless they are following the regular course sequence.

WORLD LANGUAGE COURSES

The courses listed below are described in the online course bulletin, and each course listed is ½ credit per semester.

Course Title	Course No.	Notes
French 1A	1611	
French 1B	1621	
French 2A	1612	
French 2B	1622	
French 3A	*1613	
French 3B	*1623	
French 3A (Honors)	*1633	
French 3B (Honors)	*1643	
French 4A	*1614	
French 4B	*1624	
French 4A (Honors)	*1634	
French 4B (Honors)	*1644	
French 5A (Advanced)	*1615	
French 5B (Advanced)	*1625	
French 6A (Advanced)	*1616	
French 6B (Advanced)	*1626	
French AP Language A (Advanced)	*1635	
French AP Language B (Advanced)	*1636	
French 7A (Advanced)	*1631	
French 7B (Advanced)	*1632	

Course Title	Course No.	Notes
Spanish 1A	1711	
Spanish 1B	1721	
Spanish 2A	1712	
Spanish 2B	1722	
Spanish 3A	*1713	
Spanish 3B	*1723	
Spanish 3A (Honors)	*1733	
Spanish 3B (Honors)	*1743	
Spanish 4A	*1714	
Spanish 4B	*1724	
Spanish 4A (Honors)	*1734	
Spanish 4B (Honors)	*1744	
Spanish 5A (Advanced)	*1715	
Spanish 5B (Advanced)	*1725	
Spanish 6A (Advanced)	*1716	
Spanish 6B (Advanced)	*1726	
Spanish AP Language A (Advanced)	*1759	
Spanish AP Language B (Advanced)	*1760	
Spanish AP Language A/B (Advanced) for students who are native Spanish speakers	*175901/176001	
Spanish AP Literature A (Advanced)	*1761	
Spanish AP Literature B (Advanced)	*1762	
Arabic 1A	1589	
Arabic 1B	1590	
Arabic 2A	1591	
Arabic 2B	1592	
Arabic 3A	1899	
Arabic 3B	1900	
Arabic 4A	1696	
Arabic 4B	1697	
Russian 1A	1851	
Russian 1B	1852	
Russian 2A	1853	
Russian 2B	1854	
Russian 3A (Honors)	*1846	
Russian 3B (Honors)	*1847	
Russian 4A (Honors)	*1848	

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Russian 4B (Honors)		*1849
Russian 5A (Advanced)		*1859
Russian 5B (Advanced)		*1860
Prototype AP Russian Language and Culture A	*1867	
Prototype AP Russian Language and Culture B	*1868	
Japanese 1A	1831	
Japanese 1B	1832	
Japanese 2A	1833	
Japanese 2B	1834	
Japanese 3A (Honors)	*1839	
Japanese 3B (Honors)	*1840	
Japanese 4A (Honors)	*1841	
Japanese 4B (Honors)	*1842	
Japanese 5A (Advanced)	*1843	
Japanese 5B (Advanced)	*1844	
AP Japanese Language A	*1539	
AP Japanese Language	*1540	
Italian 1A	1981	
Italian 1B	1982	
Italian 2A	1983	
Italian 2B	1984	
Italian 3A (Honors)	*1989	
Italian 3B (Honors)	*1990	
Italian 4A (Honors)	*1991	
Italian 4B (Honors)	*1992	
Italian 5A (Advanced)	1794	
Italian 5B (Advanced)	1795	
Chinese 1A	1871	
Chinese 1B	1872	
Chinese 2A	1873	
Chinese 2B	1874	
Chinese 3A (Honors)	*1925	
Chinese 3B (Honors)	*1926	
Chinese 4A (Honors)	*1927	
Chinese 4B (Honors)	*1928	
AP Chinese Language A	*1929	
AP Chinese Language B	*1930	

INTENSIVE ENGLISH LANGUAGE CENTER (ESOL CLASSES)

Students who require instruction in English as a second language and basic instruction in required social studies courses are enrolled in ESOL classes by ability level. ESOL classes carry English/Language Arts and social studies credits.

Intensive English Language Center (IELC)

Walt Whitman has a large Intensive English Language Center, which is available to students through placement by the Foreign Student Office. Students are placed in IELC levels by standardized test or teacher recommendation only.

Each course listed is 1/2 credit per semester. ESOL 1-5 receive English credit.

Course Title	Course No.	Notes
IELC - (ESOL)		
ESOL MultiMedia Arts Literacy A	1226	
ESOL Multi Media Arts Literacy B	1227	
ESOL LAB A	1206	
ESOL LAB B	1216	
ESOL 1A	1201	
ESOL 1B	1211	
ESOL 2A	1202	
ESOL 2B	1212	
ESOL 3A	1203	
ESOL 3B	1213	
ESOL 4A	1204	
ESOL 4B	1214	
ESOL 5A	1205	
ESOL 5B	1215	
ESOL 1A Lev. ½ - (Elective Credit)	1217	
ESOL 1B Lev. ½ - (Elective Credit)	1218	
ESOL 2A Lev. ½ - (Elective Credit)	1219	
ESOL 2B Lev. ½ - (Elective Credit)	1220	
ESOL U.S. History A (Levels 3-5)	211006	
ESOL U.S. History A (Levels 1-2)	211005	
ESOL U.S. History B (Levels 3-5)	211206	
ESOL U.S. History B (Levels 1-2)	211205	
ESOL NSL Government A - Levels 3 - 5	212706	
ESOL NSL Government B - Levels 3 - 5	212806	
ESOL – Modern World A/B	222106/222206	
TOEFL	(Sem 1) 114241 (Sem 2) 114242	
This course is designed to prepare students for the TOEFL, an exam some colleges require.		
ESOL-Biology A/B	363106/363206	
Applied Science A/B	3611/3612	

MATHEMATICS DEPARTMENT

Four mathematics credits are required for graduation. Algebra 1 and Geometry must be included.

Please consult the flow chart on the course sequence in mathematics to decide on your next math course. Your present math teacher is your best source of advice for a recommendation. The courses listed below are described in the on-line course bulletin, and each course is $\frac{1}{2}$ credit per semester.

Course Title	Course No.	Notes
Algebra 1A	3111	Prerequisite: Math 8
Algebra 1B	3112	Algebra 1 A
<hr/>		
Two-year Algebra		
Related Math A	323121	Sem 1, year 1
Algebra IA	311122	Sem 2, year 1
Related Math B	323221	Sem 1, year 2
Algebra IB	311222	Sem 2, year 2
<hr/>		
Geometry A	3201	Algebra 1B
Geometry B	3202	Geometry A
Geometry A - Honors	*3203	“A”or“B”in Algebra 1
Geometry B - Honors	*3204	Honors Geo A
<hr/>		
Bridge to Alg 2 A	3053	
Bridge to Alg 2 B	3054	
Algebra 2A	*3301	Algebra 1 & Geometry
Algebra 2B	*3302	Algebra 2A
Algebra 2 --Honors A	*3310	<u>A</u> or <u>B</u> in Hon. Geom.
Algebra 2 --Honors B	*3311	Algebra 2 honors A
<hr/>		
Pre Calculus A	*3489	Alg 2A&B
Pre Calculus B	*3490	Pre Cal A
Pre Calculus --Honors A	*3350	Alg2 –H A&B
Pre Calculus --Honors B	*3351	Pre Cal – H A&B
<hr/>		
Calculus with Applications A (Adv)	*3356	Pre Calc A&B
Calculus with Applications B (Adv)	*3357	Calc Apps A
AP Calculus AB – A (Adv)	*3452	Pre Cal - H A&B
AP Calculus AB – B (Adv)	*3453	Cal AB - A
AP Calculus BC – A (Adv)	*3491	Pre Cal- H
AP Calculus BC – B (Adv)	*3492	Cal BC – A

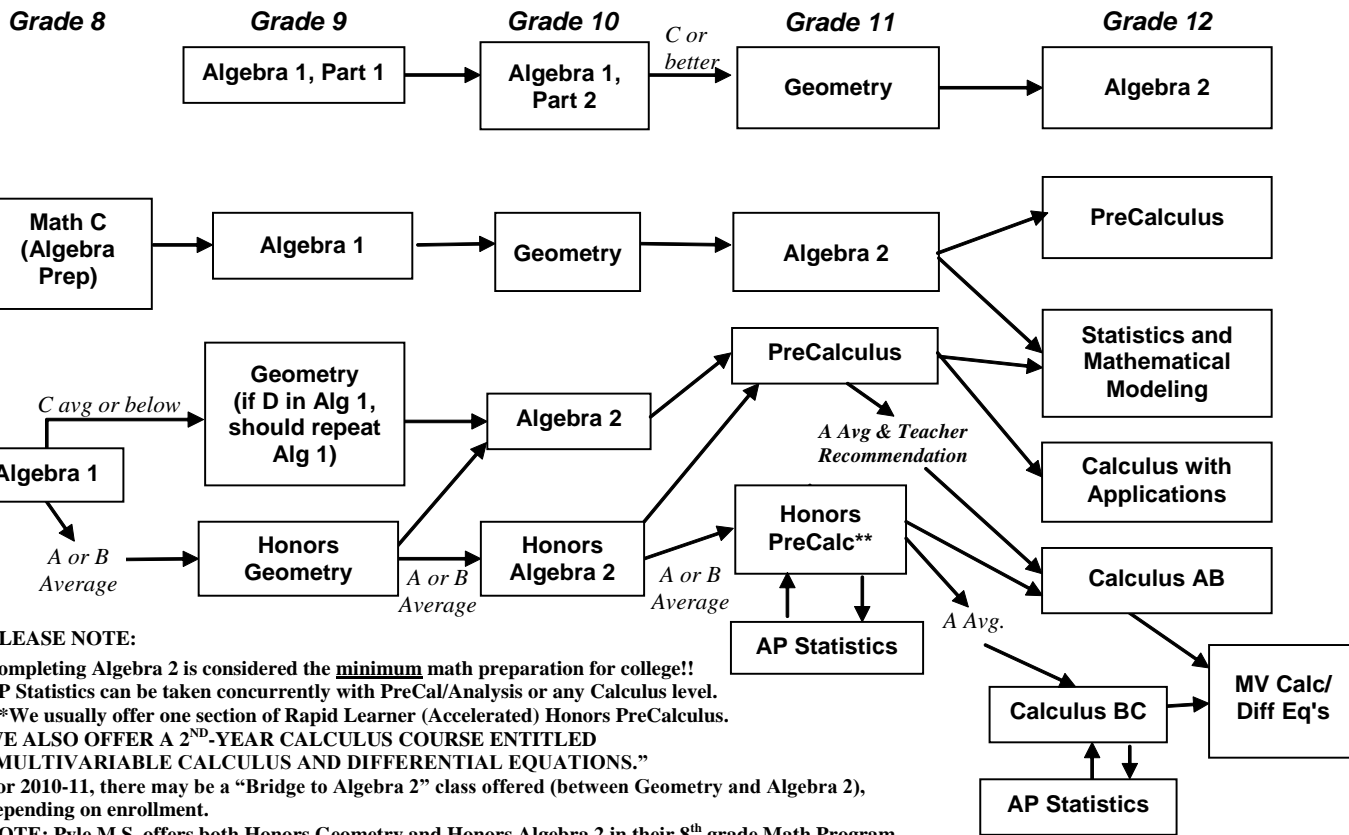
Course Title	Course No.		Notes
Multi-variable Calculus/Differential Equations A (Adv)		*3048	Calc AB or BC
Multi-variable Calculus/Dif.Equa.B (Adv)	*3049		Multi-variable A
Statistics & Mathematical Modeling (SAMM)A	*3322		Algebra 2B
Statistics & Mathematical Modeling (SAMM)B	*3323		
AP Statistics A (Adv)	*3320		
		Completion of Hon Alg 2 or concurrent w/ hon Precalc A or Calculus	
AP Statistics B (Adv)	*3321		AP Statistics A
Quantitative Literacy A	3121		Pre-reqs TBD, but students should have completed Geometry A/B and possibly Algebra 2 A/B.
Quantitative Literacy B	3122		Quantitative Literay A

Courses marked * count toward the Certificate of Merit Mathematics Electives

Multi-variable Calculus and Differential Equations (2nd yr. Calc)

Material includes three-dimensional analytic geometry and vectors, the calculus of functions of more than one variable including partial derivatives, vector-valued functions, multiple integrals, volumes, surface area, and the classic theorems of Green, Stokes, and Gauss, the basic concepts, theories, methods, and applications of ordinary differential equations. The specific topics covered are first-order equations, higher-order linear differential equations, and systems of linear equations, solutions by power series, and the Laplace transform.

Course Sequence for Mathematics



MUSIC

One Fine Arts credit is required for graduation. All Music courses satisfy the MCPS Fine Arts requirement for graduation.

- Each course listed is 1/2 credit per semester. Public performances during and after school hours may be required to meet course objectives. Fees will be published at a later date.

Course Title	Course No.	Notes
Guitar A/B	6585/6586	No exp. Necessary
Music 1A/1B - Piano	6520/6521	No exp. Necessary
Music 2A/2B - Inter. Piano	6535/6536	
Music Theory & Comp. 1A/1B	*6545/6546	
Music and Its Technology A/B	6605/6607	(Electronic Music)
Concert Orchestra A	6851	Previous experience necessary (2 years minimum) Gr 9-12
Concert Orchestra B	6852	
Concert Band A	*6821	Previous experience necessary (3 years minimum)
Concert Band B	*6822	
Symphonic Band A/Hon A	*6826/*6828	By audition only
Symphonic Band B/Hon B	*6827/*6829	
Jazz Ensemble A/Hon A	*6871/*6873	By audition only; concurrent enrollment in a second ensemble is required
Jazz Ensemble B/Hon B	6872/*6874	
Symphonic Orch A/Hon A	*6866/*6868	By audition only
Symphonic Orch B/Hon B	*6867/*6869	By audition only
Wind Ensemble A/Hon A	*686601/*686801	By auditon only
Wind Ensemble B/Hon B	*686701/*686901	By audition only
Beginning Percussion Ensemble A	6811	<i>(no prerequisite)</i>
Beginning Percussion Ensemble B	6885	
Freshman Chorus A	6701	<i>(no prerequisite)</i>
Freshman Chorus B	6702	
Treble Chorale 1A	6711	Intermediate Level audition not required
Treble Chorale 1B	6712	
Men's Chorus 2A/Honors 2A	6721/6733	Grade 10-12
Men's Chorus 2B/Honors 2B	6722/6734	
Women's Chorus 3A/Honors 3A	6731/6733	Grades 11-12
Women's Chorus 3B/Honors 3B	6732/6734	
Chamber Choir A/Honors A	*6741/*6743	Grades 11-12
Chamber Choir B/Honors B	*6742/*6744	Audition is required
Concurrent enrollment in a second ensemble is necessary for Chamber Choir		

GENERAL MUSIC COURSES

Guitar A and B

Guitar students learn to read standard music notation and to play chords using a variety of strumming and picking patterns, while also learning about the history and technology of acoustic and electric guitars. Advanced chord forms and scales for improvisation are introduced in Guitar B. Guitar B is open only to students who have successfully completed Guitar A or received permission from the instructor.

Piano 1 & 2

Experienced pianists, as well as beginners, may register for this course as instruction is individualized and repertoire is selected to suit the proficiency level of each student.

Music and Its Technology

Students learn to use a variety of synthesizers, recording equipment, and computer programs to create music, and gain an understanding of acoustics, electronic technology, and music theory as required to function effectively as an electronic musician.

Music Theory and Composition

Students with prior substantial experience in reading and performing music may take this course to enhance their understanding of the structure, notation, and terminology of music. Skills in score analysis, music writing, keyboard harmony, and listening are developed. Students find that study of Music Theory enables them to be more effective as performers, creators, and audience members.

INSTRUMENTAL MUSIC COURSES

All Ensembles

Instruction includes developing technical performance skills and appreciation for the music of different cultures. Students who are beginning an instrument or who are experienced musicians will all be challenged by participation in band/orchestra. Lessons, musical literature, and performance opportunities in band, marching band, and orchestra are available for experienced music students.

Beginning Percussion Ensemble

Enrollment in this class is open to all students. Pianists, new students or students with limited or no musical background are welcome. Percussion Ensemble is designed for students currently outside the music department who want to learn the basic techniques of drumming. Musicians will perform on various instruments, such as snares, set cymbals, all sizes of drums, piano/ synthesizer, mallet instruments, timpani, tonal bass drums and more. This ensemble will perform various works of the 20th and 21st century. Practice habits and music reading skills will be stressed. Performances, as well as the Music Department Rubric for Dially Rehearsal Objectives, are used as forms of evaluation.

Concert Band

This group is for 9^h grade musicians with more than one year of experience and its members are also required to perform at home football games. This ensemble will perform at the Winter Instrumental Concert and the Festival of the Arts. A lab fee will be charged to help defray the costs of music and other essential materials for the year. Students will be charged an additional fee to pay for transportation to competitions.

Concert Orchestra

Any student who has played an orchestra string instrument for two or more years is eligible to join Concert Orchestra. This ensemble will perform at the Winter Instrumental Concert and the Festival of the Arts. A lab fee will be charged to help defray the costs of music and other essential materials for the year. Students will be charged an additional fee to pay for transportation to competitions.

Symphonic Band

This advanced performing group is for upper level musicians who meet the audition requirements. Symphonic band is a traveling, competing group. Symphonic band members are required to perform at home football games during the fall. Honors credit is now available in this class and the full marching rehearsals and performances fulfill the honors requirements for extra curricular musical activities. This ensemble will perform at the Winter Instrumental Concert, Festival of the Arts, District and State Festivals and the spring trip. A lab fee will be charged to help defray the costs of music and other essential materials for the year. Students will be charged an additional fee to pay for transportation to competitions.

Symphonic Orchestra/Wind Ensemble

This ensemble is for upper level musicians who meet the audition requirements. Symphonic Orchestra and Wind Ensemble are a traveling, competing group and members are chosen to make up the pit orchestra for the fall musical. This ensemble will perform at the Winter Instrumental Concert, Festival of the Arts, District and State Festivals and the spring trip. A lab fee will be charged to help defray the costs of music and other essential materials for the year. Students will be charged an additional fee to pay for transportation to competitions.

Jazz Ensemble

This is the most selective of the music ensembles. Participation is by audition only. The jazz ensemble has the heaviest performance schedule of all instrumental groups. The Jazz Ensemble is also required to march at home football games. This ensemble will perform at the Winter Instrumental Concert and the Festival of the Arts. This is a double period commitment with membership also required in Symphonic Band, Symphonic Orchestra, or Wind Ensemble. Students will be charged an additional fee to pay for transportation to competitions.

CHORAL MUSIC COURSES

Freshman Chorus A and B

This ensemble is open to all 9th grade students. No audition is required. Vocal techniques such as tone, intonation, and breath support will be emphasized as well as sight singing. A wide variety of music will be studied and performed. Performances will include the Winter Choral Concert and Festival of the Arts. A lab fee will be charged. Students will be charged field trip fees to pay for transportation to competitions.

Treble Chorale/Chorus 1A and 1B

This ensemble is open primarily to sophomore and junior girls as an intermediate level step to the upper level auditioned ensembles. Junior and senior girls who do not want the pressure of the more advanced groups are also welcome. No audition is required. Students will purchase their own concert gowns. Performances will include the Winter Choral Concert, District Festival, the Spring Music trip, and the Festival of the Arts. A lab fee will be charged to help defray the costs of music and essential materials for the year. Students will be charged an additional fee to pay for transportation to competitions.

Men's Chorus/Chorus 2A and 2B

This select ensemble is open to all boys grades 10-12. No audition is required, however previous music expertise is encouraged. The group will perform at the Winter Choral Concert, Festival of the Arts, District and State Festivals, and the spring music trip. A lab fee will be charged to help defray the costs of music and essential materials for the year. Students will be charged an additional fee to pay for transportation to competitions.

Women's Chorus/Chorus 3A and 3B

This select ensemble is open to all girls grades 11-12. An audition is required. The group will perform at the Winter Choral Concert, Festival of the Arts, District and State Festivals, and the spring music trip. Students will be charged an additional fee to pay for transportation to competitions.

Whitman Choir

This is the most advanced and select ensemble in the choral program. It is open to boys and girls grades 11-12 who have at least one year of previous experience in one of the other choral courses. An audition is required. In addition to the same performances as Men's and Women's choruses, a number of community performances will also be given throughout the year. This is a double period commitment, with membership also required in Men's or Women's chorus. Students will be charged field trip fees to pay for transportation to competitions.

Course descriptions are in the 2011-2012 course bulletin at <http://www.montgomeryschoolsmd.org/curriculum/coursebulletin/>

PHYSICAL EDUCATION DEPARTMENT

One credit in Physical Education and 1/2 credit in Health are required for graduation.

- Each course listed is 1/2 credit per semester. A physical education uniform is mandatory for all students enrolled in physical education.

Course Title	Course No.	Notes
General Physical Education A	7720	(gr. 9-12) Semester 1
General Physical Education B	7721	(gr. 9-12) Semester 2
Comprehensive Health Education Honors	784101 (Sem 1) 784102 (Sem 2)	Grade 10
Specialty Physical Education:		
Specialty Basketball A	774201	(gr. 9-12) Semester 1
Specialty Basketball B	774202	(gr. 9-12) Semester 2
Specialty Soccer A	774801	(gr. 9-12) Semester 1
Specialty Soccer B	774802	(gr. 9-12) Semester 2
Specialty Net Games A	773601	(gr. 9-12) Semester 1
Specialty Net Games B	773602	(gr. 9-12) Semester 2
Weight Training A	775201	(gr.10-12) Semester 1
Weight Training B	775202	(gr.10-12) Semester 2
Intro to Weight Training A	772301	(gr.9-12) Semester 1
Intro to Weight Training B	772302	(gr.9-12) Semester 2
Personal Fitness A	774501	(gr 9-12) Semester 1
Personal Fitness B	774502	(gr. 9-12) Semester 2
Ultimate Games A	775001	(gr 9-12) Semester 1
Ultimate Games B	775002	(gr 9-12) Semester 2
WALT	774001	(gr 10-12) Semester 1
WALT	774002	(gr 10-12) Semester 2

PHYSICAL EDUCATION COURSES

General Physical Education A

This course will include opportunities for a varied selection of individual, dual, and team developmental activities. Students will be guided in identifying and improving their individual physical fitness levels. Students in each class will be grouped by interest, ability, and previous experience in a given activity when possible.

General Physical Education B

This course is recommended as the second semester experience. The objective in the second semester of activities is continuous development of skills and individual physical fitness.

Comprehensive Health Education- Honors

This semester course meets the state one-half credit Health Education graduation requirement. Students will be expected to complete individual projects that may require utilizing outside community resources/agencies, working with others on group assignments, as well as, completing individual projects requiring the ability to do research on a given topic. Students will utilize current technology through the use of computers for accessing relevant health information on a given assignment. Refer to description under comprehensive health education for additional information. (Grade 10)

Specialty Basketball - Grades 9-12

This course is designed to provide students with an understanding of the various skills and strategies utilized in playing the game of basketball. Students will be instructed in how to perform basketball drills and plays. They will also be expected to develop their own drills and plays with the expectation to design a practice plan. Students will be assessed on a variety of skills as well as fitness.

Specialty Soccer - Grades 9-12

This course is designed to provide students with an understanding of the various skills and strategies utilized in playing the game of soccer. Students will be instructed in how to perform soccer drills and plays. They will also be expected to develop their own drills and plays with the expectation to design a practice plan. Students will be assessed on a variety of skills as well as fitness.

Specialty Net Sports – Grades 9-12

This course is designed to provide students with an understanding of the various skills and strategies utilized in playing different net games. Students will be instructed in how to perform skills, drills and game tactics in badminton, pickleball and tennis. Students will be assessed on a variety of skills as well as fitness.

Weight Training- Grades 10-12

This course includes instruction in proper use and safety of weight training equipment and various principles and methods of strength training. Instruction will also focus on the understanding of basic anatomy and physiology, and body composition. Programs will be designed to meet the individual needs of the student. Fitness will be incorporated into the students individual weight training program.(Grades 10 – 12) **Pre-requisite** Intro to Weight Training and/or with first semester PE teacher referral.

Introduction to Weight Training – Grades 9-12

This course is designed to introduce students to the basics of weight training. The emphasis will be on proper form, technique and safety. Students will be instructed in the concepts and terminology associated with weight training throughout the semester. Students will follow a basic workout program designed in cooperation with the instructor. and will incorporate fitness into the program.

Personal Fitness – Grades 9-12

This course is designed for students who would like to improve and/or maintain a healthy fitness level. The course will build on the five components of fitness which are: cardiovascular fitness, muscular strength, muscular endurance, body composition and flexibility as well as proper nutrition. As a culminating activity student will participate in a local 5K running race for charity. By the end of the course students will be able to design their own fitness program that addresses their personal needs. This class will benefit athletes who wish to train for their sport as well as students that are interested in improving their overall health and fitness

Ultimate Games – Grades 9 -12

This course is designed to provide students with an understanding of the various skills and strategies utilized in playing – ultimate football; flag football; capture the flag; ultimate Frisbee and other related games. Students will be instructed in how to perform skills, drills, and game tactics. Fitness assessments and homework assignments will be incorporated into all aspects of this course.

WALT – Grades 10 -12

This course is designed to help the Student/Athlete succeed at the next level and make their college athletic recruiting process more successful. Being a full time college athlete at any level is a very difficult task and one many student-athletes constantly fail at because they were unprepared for the changes and sacrifices they have to make. Through this course, you will learn how to take control of your recruiting process and analyze yourself as an athlete and a person. You will learn why you may not be discovered, what athletic scholarship opportunities really exist, how to evaluate a college, its coach, playing opportunities and much more. We want your ultimate decision to be an informed one and the right one. This course is not about obtaining an athletic scholarship; it's about becoming as successful as you can as a college athlete, as a college student, and as a person. This class does not replace or count at the required PE credit the kids need for graduation. It is a PE elective class.

SCIENCE DEPARTMENT

Three science credits are required for graduation. One Biology credit and one Physical Science credit must be included in the three credits.

Members of the Walt Whitman Science Department recommend that the four-year science sequence, regular college preparatory or honors, be as follows:

- Biology (Grade 9 or 10) [Meets Biology requirement]
- Chemistry (Grade 10 or 11) or Integrated and Applied Physical Science (grade 10-12)[Meets Physical Science requirement]
- Physics (Grade 11 or 12) or Integrated and Applied Physical Science (grade 10-12)[Meets Physical Science requirement] and Science Elective (in area of interest to the student)

Some student may choose not to complete all these core subjects and choose from science a variety of science electives that fit the interests of the students. All regular level classes are college preparatory offerings and the basic course objectives are similar in regular and honors classes. See the MCPS website for specific course indicators and outcomes.

Ninth grade students will begin with Biology (on-level or Honors) or Applied Science. It is highly recommended that students enrolled in Honors Biology are also enrolled in Honors Geometry. Applied Science is for students who need extra support, particularly in reading and/or math, and may not be ready to take the Biology High School Assessment by the end of ninth grade. Transfer students who have not completed Biology are required to take Biology if they have not completed it at their previous school.

Prerequisites/Corequisites:

- Anatomy and Physiologyrecommended Biology 1 and current enrollment or completion of Chem. 1.
- Biology Honors..... recommended current enrollment or completion of Honors Geometry.
- Biology APrecommended Bio. 1 & Chem. 1(H) & Alg. 2.
- Chemistryrecommended current enrollment or completion of Algebra 2.
- Chemistry APrecommended completion of Chem. 1 (H) & Alg. 2.
- Environmental Science AP.....recommended current enrollment or completion of Physics 1.
- Introduction to Forensic Science..recommended 1) Biology 1 & 2) Chemistry 1 or Physics 1 completed.
- Physical Science.....recommended completion on Biology 1
- Physics 1recommended Algebra 2 completion.
- Physics Honors.....recommended current enrollment or completion of Pre-Calculus.
- Physics AP B.....recommended Physics 1(H) and Pre-Calculus.
- Physics AP C.....recommended Physics 1(H) and concurrent enrollment or completion of Calculus A and B

The courses listed below are described in the online course bulletin at <http://www.montgomeryschoolsmd.org/curriculum/coursebulletin/>

Fees will be published at a later date.

Course Title	Course No.	Notes
Applied Science A/B	3611	Grade 9
Applied Science B	3612	Grade 9
Biology A	#3631	
Biology B	#3632	
Biology A (Honors)	*#3621	
Biology B (Honors)	*#3622	
Biology A AP	**#3651	Double Period
Biology B AP	**#3652	Double Period
Chemistry A	*3721	
Chemistry B	*3722	
Chemistry A (Honors)	*3711	
Chemistry B (Honors)	*3712	
Chemistry A AP	**3751	Double Period
Chemistry B AP	**3752	Double Period
Physics A	*3831	
Physics B	*3832	
Physics A (Honors)	*3821	
Physics B (Honors)	*3822	
Physics A AP-B	**3837	
Physics B AP-B	**3838	
Physics A AP-C	**3839	
Physics B AP-C	**3840	
Anatomy & Physiology A	*#3761	
Anatomy & Physiology B	*#3762	
Astronomy A	3856	
Astronomy B	3857	
Environmental Science A	3661	
Environmental Science B	3662	
Environmental Science A AP	**3659	Grade 11 or 12 only
Environmental Science B AP	**3660	Grade 11 or 12 only
Introduction to Forensic Science A	4001	Grade 11 or 12 only
Introduction to Forensic Science B	4002	Grade 11 or 12 only
Integrated and Applied Physical Science A	3944	Grade 10, 11, 12
Integrated and Applied Physical Science B	3945	Grade 10, 11, 12
Internship – Science A	*3511	Off Campus
Internship – Science B	*3512	Off Campus
Internship-Science A - Double Period	*3521	Off Campus; 1 credit
Internship-Science B - Double Period	*3522	Off Campus; 1 credit

Courses Marked * count toward the Certificate of Merit

Courses Marked ** are highly recommended for those planning to take the AP exam

Courses Marked # students should expect to dissect preserved animals or request alternatives.

SOCIAL STUDIES DEPARTMENT

Three Social Studies credits are required for graduation: one U.S. History; one National, State, and Local Government; and one Modern World History.

The courses listed below are described in the online course bulletin, and each course listed is ½ credit per semester.

Course Title	Course No.	Notes
Grade 9		
<i>Students are required to take United States History A and B or AP US history A and B.</i>		
United States History A	2110	semester 1
United States History B	2112	semester 2
United States History A (Honors)	*2111	semester 1
United States History B (Honors)	*2113	semester 2
Grade 10		
Students are required to take National, State, Local Government A and B.		
National, State, Local Government A (H)	*2127	semester 1
National, State, Local Government B (H)	*2128	semester 2
AP National, State, and Local Govt. & Politics A	*2104	(grades 9-12)
AP National, State, and Local Govt. & Politics B	*2105	(grades 9-12)
Grade 11 or 12		
<i>All students are required to take Modern World History or AP World History for graduation, and either course may be taken in 11th or 12th grade.</i>		
Modern World History A	*2221	
Modern World History B	*2222	
ESOL Modern World History A	*222106	
ESOL Modern World History B	*222206	
Modern World History A (Honors)	*2223	
Modern World History B (Honors)	*2224	
AP World History A	*2240	
AP World History B	*2241	

Courses marked * count toward the Certificate of Merit

Social Studies Elective Courses

- Each course listed is ½ credit per semester.

Course Title	Course No.	Notes
AP Comparative Government A	2132	
AP Comparative Government B	2145	
AP Macro Economics	*2315	Semester 2
AP Micro Economics	*2316	Semester 1
Sociology A	*2305	Semester 1
Sociology B	*2314	Semester 2
Anthropology A	*2309	Semester 1
Anthropology B	*2329	Semester 2
European History, AP A	*2216	
European History, AP B	*2217	
United States History, AP A	*2114	
United States History, AP B	*2124	
Global Issues in the 21 st Century A	*2347	Semester 1
Global Issues in the 21 st Century B	*2348	Semester 2
Comparative Religions	*2320	Semester 1
Philosophy	*2311	Semester 2
Law	*2312	Semester 2
Psychology 1	*2304	Semester 1
Psychology 2	*2313	Semester 2
AP Psychology A	*2330	Semester 1
AP Psychology B	*2331	Semester 2
Psychology Internship A	351101	Semester 1
Psychology Internship B	351201	Semester 2
AP Human Geogrpahy A	2332	Semester 1
AP Human Geograph B	2333	Semester 2
Student Leadership A/B	2339/2340	Elective credit
	(With Instructor permission only)	

Courses marked * count toward the Certificate of Merit

SOCIAL STUDIES ELECTIVE COURSE DESCRIPTIONS

AP Comparative Government A and B

"Comparison is fundamental to all human thought." In a world made smaller by instantaneous communication and interdependent economies, comparative analysis is a necessary part of civic education. AP Comparative Government will provide students with the conceptual tools necessary to develop an understanding of some of the world's diverse political structures and practices. Students will look closely at world events, old and new, while also studying the evolution of multinational treaties and peacekeeping organizations. Included in this course will be the study of six core countries including Great Britain, France, China, Russia, Germany, and Japan, as well as four developing countries including India, Mexico, Nigeria, and Iran. (Grades 11-12)

AP Economics Macro/Micro– Grades 10-12

This course is for students interested in college-level work in economics. Study begins with fundamental economic concepts such as scarcity, opportunity costs, production possibilities, specialization, comparative advantage, demand, supply, and price determination. Major topics include measurement of economic

performance, national income and price determination, and international economics and growth. Both macro and micro economics are covered.

AP Psychology I & II

This course includes an introduction to scientific logic, facts, theories, and principles of psychology, including the study of motivation, learning, emotion, perception, thought, intelligence, and personality. (Grades 11-12)

AP Human Geography

Human Geography focuses on the aspects of geography that relate to different cultures, with an emphasis on cultural origins and movements and the cultural characteristics of regions including language, religion, ethnicity, politics, historical development, agricultural methods, settlement patterns, and quality of life. (Grades 11-12)

Comparative Religions

The basic elements and historical development of world religions are surveyed in this course and units are organized with a comparative approach. Topics include the sacred paths of North America and Africa, South Asia (Hinduism and Buddhism), East Asia (Confucianism, Daoism and Shinto), the Mediterranean (Ancient Egypt, Mesopotamia, Greece and Persia and the Abrahamic Faiths (Judaism, Christianity, and Islam). Relevant contemporary topics from the mass media will be covered as well.. (Grades 11-12)

Anthropology A/B

Anthropology is the study of humans and the culture that they develop. Students will study a variety of topics from the subfields of this academic discipline including cultural anthropology (the exploration of human diversity: cultural characteristics, language and communication, kinship and descent, the arts, media and sports,) biological anthropology (nonhuman primates and human evolution,) and archaeology (interpretations from the material remains of past cultures). Relevant contemporary topics from the mass media will be covered as well. (Grades 11-12)

Philosophy

This course acquaints students with the discipline and history of philosophy. Major philosophers and their works are studied with focus on such issues as the nature of the universe; the basic moral and intellectual superstructure of society; good and evil; free will and determinism; and the relationship of a person to other individuals and to the state. Current trends in philosophy are studied as well. (Grades 11-12)

Psychology I

This course is a brief overview of 15 topics in psychology from an introduction to behavior to personality and abnormal behavior. The one-semester course is a survey course with an emphasis on projects. (Grades 11-12)

Psychology II

This course is designed to provide students an opportunity to learn about research methodologies in psychology. Students design and conduct research projects of their own, using the research facilities here at Whitman, or in conjunction with other schools/universities. Students work on projects designed to be presented at conferences. (Grades 11-12)

Sociology A/B

Sociology is the study of human groups and the factors that unite or divide them. Topics include the sociological perspective, culture, normative expectations, the process of socialization, status and role, groups and institutions, marriage and the family, education, deviance and crime, inequalities of race, ethnicity, gender and age, and social change. Relevant contemporary topics from the mass media will be covered as well. Grades 11-12)

Global Issues in the 21st Century A/B

Students use media resources that relate to intercultural and international topics to learn about the diversity, complexity and interdependence of the world community. This provides the necessary background to analyze the political, economic, social and cultural aspects of current world problems and issues in relation to the policies of the American government. The course helps students make connections to our global society. (Grades 11-12)

Student Leadership

This course is designed to give students a variety of classroom and practical experiences in leadership. Admission to this class is limited and based on an application process in the spring of 08. (Grades 10-12)

For other elective course descriptions, see the on-line course bulletin at
<http://www.montgomeryschoolsmd.org/curriculum/coursebulletin/>

TECHNOLOGY EDUCATION

Technology Education courses offer students instruction in a variety of areas, which may lead to lifelong professional and leisure interests. Principles of Engineering and Introduction to Engineering Design will satisfy the requirement for one credit in technology education. Students in the class of 2012 and 2013 must take one of these two courses to meet the graduation requirement for technology education.

- The courses listed below are described in the on-line course bulletin, and each course listed is 1/2 credit per semester unless otherwise noted. Course fees will be published at a later date.

Course Title	Course No.	Notes
Principles of Engineering A (gr. 9-12 TE)	5150	(1/2 credit)
Principles of Engineering B (gr. 9-12 TE)	5151	(1/2 credit)
Introduction to Engineering Design A (TE)	*5152	(1/2 credit)
Introduction to Engineering Design B (TE)	*5153	(1/2 credit)
Civil Engineering and Architecture A	*4255	(1/2 Credit)
Civil Engineering and Architecture B	*4256	(1/2 Credit)
Engineering Design and Development A	*5158	(1/2 Credit)
Engineering Design and Development B	*5159	(1/2 Credit)
Digital Electronics A	*5156	(1/2 Credit)
Digital Electronics B	*5157	(1/2 Credit)
Advanced Design Applications A	*2808	(1/2 Credit)
Advanced Design Applications B	*2809	(1/2 Credit)
Advanced Technological Applications A	*2810	(1/2 Credit)
Advanced Technological Applications B	*2811	(1/2 Credit)

Courses marked * count toward the Certificate of Merit

TECHNOLOGY EDUCATION COURSES

Introduction to Engineering Design A/B (TE)

This is an introductory course that develops students' problem-solving skills, with emphasis on visualization and communication skills using a computer and a 3-D solid modeling software. This course emphasizes the development of a design using computer software to produce, analyze, and evaluate models of projects and solutions. Students will study the design concepts of form and function and then use state-of-the-art technology to translate conceptual design into reproducible products.

Prerequisite: Students must successfully complete IED A to enroll in IED B. Algebra 1 minimal math experience.

Corequisite: Algebra 1 or higher college prep math course to be taken concurrent for all PLTW courses. Grades 9-12.

Principles of Engineering A/B (TE)

This is a broad-based survey course to help students understand engineering, engineering technology, and identify career possibilities. This course provides an overview of engineering and engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the emerging social and political consequences of technological change. (Advanced level credit)

Prerequisite: Students must successfully complete POE A to enroll in POE B. *Corequisite:* Students must be in a college prep math sequence to enroll in this class. Algebra 1 with a B or higher is the minimal math requirement and Algebra 2 is preferred. Students completing the PLTW sequence should consider taking IED before POE.

Civil Engineering and Architecture A/B (Honors)

This course provides an overview of the fields of civil engineering and architecture, while emphasizing the interrelationship and interdependence of both fields. Students use state-of-the-art software to solve real-world problems and communicate solutions to hands-on projects and activities. This course covers topics such as: The Roles of Civil Engineers and Architects; Project Planning; Site Planning; Building and Engineering Design; and Project Documentation and Presentation.

Prerequisite: Algebra 1 or higher college prep math course to be taken concurrent for all Project Lead The Way (PLTW) courses. Corequisite: This course is only for students in the Project Lead The Way (PLTW) advanced engineering career pathway. Students must have completed POE and IED to take this course.

Engineering Design and Development A/B (Honors)

This is the capstone course for the Project Lead The Way (PLTW) advanced engineering program. At the end of the course, teams present their research paper and defend their projects to a panel of engineers, business leaders, and engineer college educators for a professional review and feedback. This course equips students with the independent study skills that they will need in postsecondary education and careers in engineering and engineering technology.

Prerequisite: All courses in the PLTW sequence of courses leading up to this capstone course. Corequisite: Students must be in and continue with college preparatory math courses

Digital Electronics A/B

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 watches, calculators, video games, and computers. Students use industry-standard computer software in testing and analyzing digital circuitry. They design circuits to solve problems and use appropriate components to build their designs. Students use mathematics and science in solving real-world engineering problems.

Prerequisite: Principles of Engineering, and Introduction to Engineering preferred. Corequisite: Students must be in and continue with college preparatory math courses

Advanced Design Application A/B

In this course, students study about four components of the Designed World, including Information Technology, Agriculture and Bio-related Technologies, Medical, and Entertainment/Recreation. The Agriculture and Biotechnologies unit explores how agricultural technologies provide increased crop yields and allow adaptation to changing and harsh environments. It also offers an analysis of the various uses of biotechnology and the ethical considerations of those uses. The Entertainment and Recreation unit provides a study of technological entertainment and recreation systems, with an examination of the differences between these technologies, of how their use enhances human leisure-time performance, and of the social, cultural, and environmental implications of their usage. The Information Technologies unit examines how technology facilitates the gathering, manipulation, storage, and transmission of data, and how this data can be used to create useful products. The Medical Technologies Unit students will also examine tools and devices used to repair and replace organs, prevent disease, and rehabilitate the human body. (Advanced Credit Course)

Advanced Technology Application A/B

In this course, students study about four components of the Designed World, including Information Technology, Agriculture and Bio-related Technologies, Medical, and Entertainment/Recreation. The Agriculture and Biotechnologies unit explores how agricultural technologies provide increased crop yields and allow adaptation to changing and harsh environments. It also offers an analysis of the various uses of biotechnology and the ethical considerations of those uses. The Entertainment and Recreation unit provides a study of technological entertainment and recreation systems, with an examination of the differences between these technologies, of how their use enhances human leisure-time performance, and of the social, cultural, and environmental implications of their usage. The Information Technologies unit examines how technology facilitates the gathering, manipulation, storage, and transmission of data, and how this data can be used to create useful products. The Medical Technologies Unit students will also examine tools and devices used to repair and replace organs, prevent disease, and rehabilitate the human body. (Advanced Credit Course)

ADDITIONAL COURSES

Each course listed is 1/2 credit per semester unless otherwise noted.

Course Title	Course No.	Notes
Student Assistant A	0600	Assist in school, sem 1
Student Assistant B	0700	Assist in school, sem 2
Student Internship A	7813	
Student Internship B	7816	
Student Internship DP A	7818	Double Period
Student Internship DP B	7819	Double Period
Student Internship A	7822	Triple Period
Student Internship B	7823	Triple Period
Designated Hitter Internship A	781301	Work with LFI students
Desingated Hitter Internship B	781601	Work with LFI Students
College Class, UMD (periods 1 & 2)	035001/035002	
College Class, MC (periods 7 & 8)	035011/035012	
HSA Workshop	114601	Semester 1
HSA Workshop	114602	Semester 2
Resource A/B	114209/114210	Special Education resource class

Courses marked * count toward the Certificate of Merit

