

Col. Zadok Magruder H.S.

Course Bulletin



2019 - 2020

Colonel Zadok Magruder High School

Dear Students and Parents:

The 2019-2020 Magruder High School Bulletin is a comprehensive document which you will use to plan your high school program. It is our goal to provide the best program possible for our students. It is now time for you to choose those courses which will best help you meet your student's educational goals.

This bulletin contains a comprehensive listing of all the courses which we plan to offer at Magruder High School next year. Please review each course with your child. You should pay close attention to the prerequisite course assignments/projects, and the approximate number of study hours. It is important that you study the bulletin and plan an education program consistent with your goals, graduation requirements, and individualized four year plan. We are excited about the development of our Aviation and Aerospace program and the revised application process for our Pursuing Excellence in the Academic Curriculum (PEAC) program. These programs allow students to pursue academic excellence at the highest levels. Please give some consideration to enrolling in one of these rigorous academic programs.

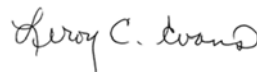
As you begin choosing courses, it is very important that you use the four-year plan as a guide. This will help insure that you systematically meet graduation requirements as you progress through each year. You should select rigorous courses including Honors and Advanced Placement. This will help you gain acceptance to the most competitive colleges/universities of your choice. Seniors need to remember that a minimum of four credits must be earned in the senior year.

Please be aware that the choices you make now will determine which courses we will offer next year. Your selections will also help determine the number of teachers in each department. Once course offerings and staffing decisions are made in May through July, it becomes very difficult to make student schedule changes. **Therefore, requests to change students' schedules are not approved after June 1, 2019.** If there is a **very unusual** circumstance, an appeal and administrative review is required to change the schedule.

In May, a course verification letter will be mailed to all students. Please review the course verification carefully and let your counselor know if there are any changes that need to be made to your course selections.

Counselors will meet with students in classes to go over the materials in this packet and to complete the actual selection process. If there is a course conflict in your schedule, we plan to resolve the problem with you before you depart for the summer break. In extreme circumstances, we may need to contact you over the summer so please be sure to leave a contact number. If you need assistance with any part of the registration process, please contact the Magruder High School Counseling Services Office at (240) 740-5550.

Sincerely,



Lee Evans
Principal

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	Molly Jang
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Career Information Coordinator	Julie Yang
Registrar	Donte Gassaway-Fields

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Introduction

The *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.

In the Montgomery County Public Schools (MSPC) high school students experience various academic, extracurricular, and community activities that provide a wealth of experience and help 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 will make appropriate academic decisions if they relate the courses they take in high school to career choices they are considering for the future. Students should talk to their teachers and counselors about the courses needed and how they relate to a particular career interest.

MCPS Online Course Bulletin

Students and parents are strongly encouraged to access the MCPS Course Bulletin online, www.mcps.k12.md.us/curriculum/coursebulletin. It is the most comprehensive source of information about all programs and all courses available to MCPS students. While all Magruder courses will be in the MCPS Bulletin, many courses in the MCPS Bulletin are not offered at Magruder. Features of the online bulletin include:

- complete course descriptions, including credit hours and prerequisites, at which high
- schools the course is offered, and other information
- searchable database of courses
- ability to shop for courses and add them to a printable, savable four-year worksheet
- links to resources related to the high school course selection and the college/career planning process
- updated course information throughout the year
- curriculum information and guides
- high school instruction and achievement information
- career and college planning information with links to all high schools' career and college centers
- "Planning Tools" page
- lists of
 - countywide programs
 - student service learning courses
 - AP and Advanced Level courses
 - International Baccalaureate courses
 - Career Themed Program courses (CTE)

Students who do not have access to computers at home may use computers in the Media Center or Career Center to use the MCPS Online Course Bulletin. Hard copies of the MCPS Course Bulletin are available in the Counseling Services Office.

MARYLAND DIPLOMA REQUIREMENTS

The state of Maryland authorizes one diploma for all high school graduates, based on successful fulfillment of four categories of requirements: enrollment, course credit, Student Service Learning (SSL), and assessments developed or adopted by the Maryland State Department of Education (MSDE), collectively referred to as the Maryland High School Assessments (MHSA). All requirements are summarized in the table below.

College and Career Readiness

In 2013, the Maryland General Assembly passed the College and Career Readiness and College Completion Act (CCRCCA), aimed at ensuring that all students are prepared for credit-bearing coursework in college and for living-wage careers. The CCRCCA includes the requirement that all students be assessed for college and career readiness in English and mathematics by the end of Grade 11, using one of several college and career readiness assessments. Students who do not meet the college and career ready standard in English and mathematics by the end of Grade 11 will be required to enroll in a transition course or other instructional opportunity during Grade 12. In preparation for reassessment. After completing the transition course or instructional opportunity, students must be reassessed by the end of Grade 12. School counselors and staff will work closely with students to determine the best assessment to take in Grade 11 as well as transition course options and reassessment during Grade 12, if necessary. More information about college and career readiness for the graduating class of 2023 is available at the website www.montgomeryschoolsmd.org/info/CCRCCA/.

Course Credits

Students shall be enrolled in Montgomery County Public Schools (MCPS) and have earned a minimum of 22 credits that include the following (unless a preapproved MCPS alternative is satisfied):

MCPS GRADUATION REQUIREMENTS AT A GLANCE			
ENGLISH	4 credits		
FINE ARTS	1 credit Selected courses in art, dance, drama/theatre, and music that satisfy the fine arts requirement are designated FA		
HEALTH EDUCATION	0.5 credit		
MATHEMATICS	4 credits, 1 full-year (A/B) algebra credit or one or more credits in a subsequent mathematics course for which Algebra 1 is a prerequisite, and 1 (A/B) geometry credit. NEW STATE REQUIREMENT FOR STUDENTS IN 2018 AND LATER: Students graduating in 2018 and later must be enrolled in a math course in each year of high school. This may result in students earning more than 4 credits in math for graduation.		
PHYSICAL EDUCATION	1 credit		
SCIENCE	3 Next Generation Science Standard (NGSS) credits, including at least 1 life science credit (BC) and 1 physical science credit (PC).		
SOCIAL STUDIES	3 credits, must include 1 U.S. History credit; 1 World History credit; and 1 National, State, and Local (NSL) Government credit		
TECHNOLOGY EDUCATION (TE)	1 credit designated TE. Advanced Technology (AT) courses do not satisfy the TE course requirement.		
ELECTIVES: The additional credits required for graduation may be fulfilled by one of the following three options	OPTION 1	OPTION 2	OPTION 3
	2 credits in a world language, which may include American Sign Language AND 2.5 credits in elective courses	2 credits in advanced technology education (AT) AND 2.5 credits in elective courses. TE courses do not count as AT course credit.	Complete a state-approved Career Readiness Program of Study (POS) AND 0.5 credit in electives courses
STUDENT SERVICE LEARNING (SSL)	75 service-learning hours		
Up-to-date graduation requirements by class may be found at www.montgomeryschoolsmd.org/curriculum/graduation-requirements.aspx			

Enrollment

Students must satisfactorily complete four years of school beyond Grade 8. (For exceptions, see Alternatives to Four-Year Enrollment.) Beginning with students entering ninth grade for the first time in the 2014-2015 school year or later, each student shall enroll in a mathematics-based course each year the student attends a Maryland public high school, up to four years. This requirement is not waived for students enrolled in high school mathematics courses in middle school. MCPS courses that satisfy this requirement are published annually in this course bulletin. Students may also fulfill this requirement via dual enrollment, as set forth in section of MCPS Regulation ISB-RA, High School Graduation Requirements at www.montgomeryschoolsmd.org/departments/policy/pdf/isbra.pdf.

Maryland High School Comprehensive Assessment Program

Maryland High School Comprehensive Assessment Program are tests developed for or adopted by MSDE that are aligned with and measure a student's skills and knowledge as set forth in the content standards for specified courses. The term "MCAP" encompasses both the High School Assessment (HSA) developed for Maryland, tests developed by the Partnership for Assessment of Readiness for College and Careers (PARCC), as well as other tests that MSDE may develop or adopt in the future. Students take these assessments as they complete the corresponding courses.

MARYLAND HIGH SCHOOL COMPREHENSIVE ASSESSMENT PROGRAM (MCAP) REQUIREMENTS^{1,2,3,4}

For Students Graduating in 2023 HSA, PARCC, and MISA Assessments

The MCAP requirements are subject to change by the Maryland State Department of Education (MSDE).

ALGEBRA 1	Course credit earned in Algebra 1 AND • Pass Algebra 1 PARCC
MISA Maryland Integrated Science Assessment	3 NGSS courses in Science AND • Pass HS-MISA
ENGLISH 10	Course credit earned in English 10 or ESOL 3 or higher AND • Pass English Language Arts/Literacy (ELA/L) 10 MCAP HSA
GOVERNMENT	Course credit earned in National, State, and Local Government AND • Pass Government HSA

¹ Substitute Test: Students earning qualifying scores on substitute tests (AP/IB) will meet the MCAP HSA requirement in that content area.

² Transfer Credit: Students transferring from outside MD public schools may be eligible to meet some MCAP HSA content area requirements with Transfer Credit.

³ Combined test score options are available for the HSAs and for the PARCC assessments.

⁴ Bridge Plan: The Bridge Plan is an alternative means of meeting the MCAP HSA graduation requirement. With the Bridge Plan, students demonstrate content mastery by completing projects when they have difficulty passing the traditional test.

For additional information regarding MCPS graduation requirements visit www.montgomeryschoolsmd.org/curriculum/graduation-requirements.aspx

Promotion Regulation

MCPS Regulation JEB-RA, Placement, Promotion, Acceleration, and Retention of Students (www.montgomeryschoolsmd.org/departments/policy/pdf/jebra.pdf), requires that high school students earn 5 credits each year in order to be promoted, including specific required credits in English, mathematics, science, and social studies, as indicated in the chart below.

End of:	Total Credits Needed for Promotion to Next Grade	TOTAL CREDITS IN REQUIRED COURSES				
		Math	English	Science	Social Studies	Other Courses— See Options Required for Graduation
Grade 9	5	1	1	0	0	3
Grade 10	10	2	2	1	1	4
Grade 11	15	3	3	2	2	5

Student Service Learning (SSL)

Service learning is a diploma component in Maryland. The number of service learning hours needed for graduation is based on the date a student first enrolled in MCPS. The specific SSL hour requirement is explained, along with other SSL information, at <http://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. The phases of preparation, action, and reflection, distinguish student service learning from volunteering and community service.

Students may earn SSL hours in the following ways:

- In any course where curricular objectives are met through service learning. Initial activity planning occurs between the teacher and the SSL coordinator. Preparation, action and reflection are necessary phases of the activity. The awarding of SSL hours is not automatic; the teacher must submit documentation of the SSL activity, the names of the students involved, and the SSL hours earned.
- Through co-curricular activities where school clubs and organizations use preparation, action, and reflection phrases to address community need and support service learning opportunities.
- Within non-profit, tax-exempt community organizations that are pre-approved for SSL and address a community need. A list of pre-approved activities and organizations titled "Service Opportunities" is available on the Web site at <http://mcpsssl.org>, in school counseling offices, and in Student Service Learning Guide to Volunteer Opportunities.
- Through special activities offered with nonprofit, tax-exempt organizations that are not identified on the "Service Opportunities" list. The MCPS Form 560-50, Application for Student Service Learning Special Activity must be submitted and approved in advance of this service.

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.

MCPS Form 560-51 (PDF, 80K), Student Service Learning Activity Verification, is required to document SSL activities that occur in schools through courses, clubs, or organizations and with community nonprofit tax-exempt organizations. For individual SSL questions, contact the SSL coordinator in any middle or high school.

Assessments

Maryland High School Assessments

Maryland High School Assessments (MHSA) are those tests developed for or adopted by MSDE that are aligned with and measure a student's skills and knowledge as set forth in the content standards for specific courses. The term "MHSA" encompasses both the High School Assessment (HSA) developed for Maryland, tests developed by the Partnership for Assessment of Readiness for College and Careers (PARCC), as well as other tests MSDE may develop or adopt in the future, including the Maryland Integrated Science Assessment (MISA). Students take these assessments as they complete the corresponding courses.

The State Board of Education set minimum passing scores for the High School Assessments (Algebra/Data Analysis, English, and Biology) in June for 2004 and made the High School Assessments a graduation requirement for students entering grade 9 in September 2005 (Class of 2009) and after. They also adopted a plan to offer alternative ways to calculate a cumulative total passing score.

For more information about the HSA or PARCC, visit <http://hsaexam.org/about.html>

Maryland Certificates

Maryland High School Certificate

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

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

- Advanced Courses
At least 12 credits must be earned in advance courses identified by MCPS as applicable to the Certificate of Merit. A CM in course listings in the MCPS High School Course Bulletin designates courses that satisfy these requirements.
- Cumulative Grade Point Average
Students must obtain at least a 3.0 unweighted cumulative grade point average. All courses counted toward the Certificate of Merit 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 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 receives a final grade and 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" and the second by "B." Limitations on school resources dictate that "A" courses usually are offered in the fall and "B" courses in the spring.

High School Credit for Middle School Students

High school credit is awarded to students who complete high school courses while in middle school after the student has passed the final examination and passed the course.

Honors, Advanced Placement, and Advanced-level Courses

Honors, advanced-level, and Advanced Placement (AP) courses provide rigorous and challenging studies for highly able and potentially high-achieving students who are capable or motivated to pursue rigorous and challenging instruction. Students enroll in individual Honors, advanced-level, and AP courses and not in an Honors program as a whole.

Honors Courses

Honors courses include course work in art, computer science, English, world 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 content areas: Information Technology/Computer Science; World Languages; Mathematics; Science; Blair magnet courses; selected International Baccalaureate courses; selected Poolesville Global Ecology courses. Please consult your school counselor for the courses offered at your school.

Advanced Placement Courses

Advanced Placement (AP) courses are those for which a College Board Advanced Placement examination exists. 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; Information Technology/Computer Science; English; World Languages; Mathematics; Music; Science; Social Studies.

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

Honors (H), Advanced-Level (AL), Advanced Placement (AP), and International Baccalaureate (IB) courses provide opportunities for students to pursue rigorous and challenging studies. Students seeking an IB diploma or participating in a certificate program must meet the requirements of the program in addition to the MCPS requirements for graduation. Teachers, counselors, parents/guardians will work together to support each student's progress in these challenging courses.

According to Montgomery County Board Education Policy IOA, *Gifted and Talented Education*, and accompanying MCPS Regulation IOA-RA, *Gifted and Talented Education*, multiple criteria such as:

- Mastery of course prerequisites (grades of A, B, or C)
- Willingness to complete challenging assignments
- Previous grades
- Willingness to complete challenging assignments
- Student interest or motivation
- Teacher/counselor recommendations
- Parent/guardian recommendations
- Work samples and portfolios

will be used to enroll high school students to Honors, Advanced-level, AP, or IB classes. All students with the capability, motivation, or potential to accept the challenge of such a program will have an opportunity to do so.

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 withdrawals 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, credits 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 viability. In the case of online courses, the course must be approved by MSDE and MCPS. See the list of online courses approved by MCPS for credit toward graduation at www.montgomeryschoolmd.org/departments/onlinelearning.

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 in advance is required. 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 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. Grades are based on a variety of measures over time. Learning is evaluated using varied tasks, assignments such as tests, projects, reports, exhibits, and discussions, presentations, and performances. 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.

In response to school and community interest in reducing testing and increasing instructional time, Montgomery County Public Schools (MCPS) is revising its assessment strategy. On November 10, 2015, the Montgomery County Board of Education adopted revised Policy IKA, Grading and Reporting, which eliminates all two-hour semester final exams in high school courses beginning in 2016–2017, restoring at least two weeks of instructional time throughout the school year. These exams will be replaced with centrally developed marking period assessments, which can be given during regular class periods.

Reporting Student Progress

Students and parents are informed of student progress on report cards and through parent conferences as needed. Secondary schools also provide interim/progress reports, which must be sent to the parents of each student who is in danger of failing or dropping more than one letter grade during the marking period. Teachers may use a variety of informal methods to report achievement. Teachers give timely and meaningful feedback on class work, homework, and assessments. Feedback may take a variety of forms as determined by the teacher.

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.

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

Only final course grades and credit reported on high school transcripts are used in determining GPA and WGPA in accordance with the procedures set forth in **MCPS Regulation IKC-RA: Grade Point Averages and Weighted Grade Point Averages** (PDF, 21K).

Academic Eligibility for Participation in Extracurricular Activities

Students must maintain a 2.0 marking period average, with not more than one failing grade (E) in the previous marking period, in order to participate in extracurricular activities during the next marking period. The marking period average is not the same as GPA (**MCPS Regulation IQD-RA: Academic Eligibility for High School Students Who Participate in Extracurricular Activities**, PDF, 17KB).

National Collegiate Athletic Association (NCAA) & Initial Eligibility Clearinghouse (IEC)

The National Collegiate Athletic Association (NCAA) established the Initial Eligibility Clearinghouse (IEC) 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/IEC Approved Core Courses are identified in the MCPS Course Bulletin as NCAA. Almost all IEC Approved Core Courses in MCPS are in the content areas of English, world language, mathematics, science, and social studies. Students who need more specific information about NCAA/IEC Approved Core Courses and/or about NCAA Freshmen Eligibility Standards should contact the resource counselor in their school, or visit the NCAA-IEC website at <http://www.ncaaclearinghouse.net/ncaa/NCAA/common/index.html>.

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 the home school counseling office. Courses are open to such students on a space-available basis. Students/parents must provide transportation.

Career and Technology Education Programs

Career pathway programs are state-approved programs that satisfy the career development graduation requirement and are marked with CPP in the MCPS Course Bulletin. Each of these programs is part of a planned sequence in a career cluster, designed to help students acquire the specialized knowledge, skills, attitudes, and work habits required for employment and/or postsecondary education. Each high school offers career development programs.

Students seeking to enroll in a career development program 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 Career and Technology Education completion program requirements carefully for specific work-based learning component guidelines.

Students attending a Career and Technology Education career pathway program (completion program) at a location other than their home school are advised to consult with their guidance counselors to ensure that the proper amount of transportation time is allocated within their schedule.

Thomas Edison High School of Technology (TEHST)

Thomas Edison provides opportunities for students in career pathway programs that might not be available in their home school. Registration packets are available from Thomas Edison and from local school counselors. Students will enroll in Thomas Edison courses through their home school and take classes at both the home school and at Thomas Edison. Bus transportation is provided.

Other Programs Options

Schools not offering a particular career pathway program 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 career development program at another school must complete MCPS form 565-6, and submit it to their home school counselor.

Montgomery College/MCPS Partnership Programs

Symphony Orchestra Partnership Program

The MC Orchestra Partnership gives talented MCPS high school instrumental music students the opportunity to participate in the MC Symphony Orchestra and empower them to be service leaders in their community. For additional information, contact the Director of the MC Symphony Orchestra at 301-251-7550 or speak with your instrumental music teacher.

“Growing Teachers Program”

MCPS High School Students Interested in a Career in Teaching

Montgomery College (MC), in collaboration with MCPS, invites students who are high school seniors with a 2.75 GPA or above to apply to the innovative “Growing Teachers Program.” The Teacher Education Transfer Program AAT (Associate of Arts in Teaching) at MC is a degree option for MC students who want to become certified teachers. The AAT degree curriculum provides the first two years of a bachelor’s degree in teacher education and certification in partnership with MCPS, MC, Towson University, University of Maryland Baltimore County and University of Maryland – Shady Grove.

Montgomery College offers Growing Teachers Program Participants financial aid sources to help pay tuition and fees. High school students may apply for a Montgomery College Maryland State Dual Enrollment Grant, which covers the cost of one 3-credit college course per semester. Once students are enrolled full time in a teacher education program, they are eligible to apply for a \$2000 Maryland Teacher Scholarship while at MC and a \$5000-per-year scholarship for juniors and seniors at Maryland’s universities and colleges.

This program is open to all MCPS students interested in a teaching career in either elementary or secondary education. Contact the local school guidance counselor for information concerning how students may become involved in this program during high school. Students in Grades 9-11 specifically interested in early childhood educational opportunities may wish to consider participating in child development classes to prepare for enrollment in the “Growing Teachers Program” as a senior.

To apply to this program contact Montgomery College at 301-738-1757. If you need financial support, call the MC Financial Aid Office at 301-279-5100.

Montgomery College Career Certification Programs for MCPS High School Students

Students graduating from high school with a career pathway program completer may earn college credit for articulated courses by enrolling Montgomery College. Earned credits may be used toward an Associate degree at Montgomery College leading to certification and employment. For more information regarding the MC certification programs contact your school counselor.

Montgomery College offers financial aid to help pay tuition and fees. To contact the Financial Aid Office at Montgomery College, please call 301-279-5100. If you have questions call the MCPS Division of Career and Technology Education at 301-279-3565 or call MC for information and an application packet at 301-279-5000.

2019 – 2020 Registration Guidelines

1. Learn about all available course offerings.

Review this catalogue and the course descriptions in the MCPS course bulletin either online at www.mcps.k12.md.us/curriculum/coursebulletin or get a copy of the catalogue from the school Counseling Services office.

2. Become familiar with the diploma requirements.

Review the diploma requirements in this catalogue. Don't forget the Student Service Learning requirement; some courses have SSL hours embedded in them.

3. High School Graduation, College and Career planning.

Use the worksheet in the MCPS online Bulletin. Fill in the courses you have already taken and courses you would like to take. Check prerequisites to make sure the course is appropriate for you. Consider moving up to an honors courses in those regular subjects in which you have done well. Consider taking AP courses if you have done well in honors courses. The school counselors will be meeting with all students to review course selections.

4. Plan your time.

Estimate how many hours you need for extracurricular activities, work, and home life. Review the *estimated* weekly workload listed for each course. Make sure that the time commitment is manageable for you.

5. Pre-Registration and Registration.

Attend the pre-registration and registration counseling sessions. Listen carefully and ask questions as needed. Turn in registration materials to your school counselor.

Pre-registration: MHS counselor visits to feeder middle schools are scheduled for Wednesday, January 30, 2019. Pre-registration information for Magruder students in grades 9-11 will occur on Friday, January 18, 2019, via a school-wide presentation during 1st period classes.

On-line Course Registrations are scheduled for: Shady Grove 8th graders on Thursday, January 31, 2019, Redland 8th graders on Friday, February 1, 2019 and Magruder 9th, 10th, and 11th graders via social studies classes during the week of February 4 through 8, 2019.

6. Review in May.

When you receive a copy of your course listings for next year, REVIEW IT VERY CAREFULLY. This is the time to review and make changes. Request any course changes by the deadline; it will be very difficult to change your courses after that point. **DEADLINE: JUNE 1, 2019.**

7. When you get your schedule, check for errors.

Review it for *errors and omissions*. Contact your counselor right away if there is a problem.

Schedule Change Guidelines and Procedures

Schedule Change Guidelines

Schedule changes can be disruptive to a student's program and to that of the entire school. Extensive work is done to review the appropriateness of student registration choices, to build a master schedule that reflects those choices, and to develop appropriate individual student schedules within that master schedule. Therefore, requests to change student schedules will be limited and honored only after careful administrative review and approval.

Schedule changes are made using the following criteria:

1. Student is missing the prerequisite for the course.
2. Student is in a class that is not on the appropriate level.
3. Student has completed and passed the class.
4. Student is a senior needing the class to meet graduation requirements.

Schedule Change Procedures

1. The student initiating the request will complete the first section of the schedule change request form, obtain a parent signature, and submit the form to his/her guidance counselor.
2. The counselor will indicate any relevant information on the form and will forward it to the appropriate resource teacher.
3. The resource teacher and classroom teacher will review relevant data, make a recommendation and forward the form to the grade level administrator.
4. The administrator will complete the form and return to the counselor for action.
5. The counselor will notify the student of the schedule change decision and make the appropriate change to the student's schedule.
6. If the administrative decision is deferral for additional information, the counselor will obtain the additional information and then resubmit the request to the administrator for a final decision and any appropriate further action.

COURSE OFFERINGS

General Information

Prerequisites and Co-requisites

Prerequisites are courses that students are required to take before they take a listed course. Students should make sure that prerequisites have been fulfilled.

Co-requisites are courses that need to be taken at the same time as a listed course. For example, science courses often require a certain level of math mastery. Students should make sure that they sign up for any co-requisite courses.

Weekly Workload

On-Level Courses: 1 – 3 hours / week.

Honors / Academic Electives: 3 – 5 hours / week.

AP / PEAC: 5 – 7 hours / week.

Semester Notes

Many courses include an “**A/B**” designation which indicates that the course is taken for a full year. “**A**” denotes a first semester course. “**B**” denotes a second semester course. **It is very possible that a student’s first semester teachers may NOT be the same as his/her second semester teachers, even if it is a continuation of the same course, e.g. English 9.** Generally a semester course is worth ½ credit. Double or triple period courses are indicated.

Course Sequences

At the end of certain academic departments, there is a flowchart showing some of the possible pathways or sequencing of courses that a student can follow at Magruder. As the charts indicate, it is possible for a student doing well in on-level courses to move up to honors-level courses in order to have a more challenging academic experience.

Course Listings

Departments are listed alphabetically. The Health course is listed on the same page as Physical Education courses.

A complete listing of all courses offered by Montgomery County Public Schools and course descriptions may be found in the online MCPS Course Bulletin at www.mcps.k12.md.us/curriculum/coursebulletin. In addition, the MCPS Course Bulletin will be available to all students during the registration process. Students can use computers in the Media Center or Career Center to access the online course bulletin.

MAGRUDER ACADEMY PROGRAMS

Magruder offers students courses of study through the following academies:

- Academy of Early Childhood Education
- Academy of Engineering (Project Lead the Way)
- Academy of Finance (National Academy of Finance)
- Science Research Academy
- Leadership Academy (JROTC)

Magruder Academies:

- Focus on broad disciplines or fields of study
- Enable students to learn about areas of interest while completing all graduation requirements
- Require 4-7 specified credits within each academy strand that must be completed to earn Academy credentials
- Offer AP and other electives that enrich student scholarship

Why participate in an Academy program?

- Teachers can provide stronger support for students in smaller learning communities.
- In certain academies, students can participate in internship programs that provide them with experience and a network of contacts in their fields of interest.
- Academies provide a connection between lessons learned in high school classrooms and future careers and/or college.
- Academies promote stronger school-business-community relationships.

How are students admitted to Academy programs?

- All Academies require students to submit an application or letter of intent; some may require teacher recommendations and pre-requisite courses.
- Applications can be obtained from the Academies Office, the Counseling Office and online at <http://montgomeryschoolsmd.org/schools/magruderhs/>

PEAC SCHOLARS PROGRAM

What is the PEAC Scholars Program?

PEAC Scholars is an inter-disciplinary, four-year college-preparatory cohort. Its focus is on independent learning and the development of sophisticated written and oral communication skills with an emphasis on critical thinking.

How does it work?

Students interested in PEAC register for Honors English 9 and Honors Biology during the registration for their 9th grade year. The application process will occur during second semester of 9th grade as part of the registration process for the following school year. If accepted, students must enroll in accelerated PEAC courses in Honors English, AP NSL, and Honors Physics in 10th grade; AP Language and Composition, Honors World World or AP World History, and one AP Math or Science of the student's choice during their junior year; and AP Literature and complete a PEAC capstone project during their senior year. All PEAC students are expected to take AP US History.

Application Process for Students:

- Students complete the PEAC application form which is available online at <http://montgomeryschoolsmd.org/schools/magruderhs/> during February of their 9th grade year. Recommendations are required from three high school teachers.
- Applicants must also write a prompted essay during a pre-arranged session.

Some of the criteria for PEAC Scholars:

- Students must maintain an overall weighted GPA of 3.5 or higher over their four years at Magruder.
- PEAC Scholars must enroll in and complete all the required courses. Each student must complete a senior capstone project.
- Students must adhere to the MCPS and Magruder Codes of Conduct.
- Students must regularly attend school in accordance with MCPS attendance definition.

For more information contact Virginia Snyder, Director of Academy and PEAC Scholars Programs at 240-740-5576 or [Virginia B Snyder@mcpsmd.org](mailto:Virginia.B.Snyder@mcpsmd.org) or select the PEAC link on our website

ACADEMY OF EARLY CHILDHOOD EDUCATION

Career Cluster: Education, Training and Child Studies

4 credits

Program Goals

The Academy of Education is designed to provide students with a greater understanding of the teaching profession. The Academy of Education provides a wonderful opportunity for high school students to explore the physical, social, emotional, and cognitive development of young children. Students gain actual teaching experience by interacting with children in a variety of settings. Students study development from birth through early childhood to early adolescence years. Upon completion of this program, students will know Maryland and National teaching standards and certification requirements.

High school students are the teachers in the Magruder preschool. Child & Adolescent Development 1 students plan and present daily lessons to preschoolers, practicing appropriate communication and guidance techniques. The Child & Adolescent Development 2 students manage and supervise the pre-school setting and develop portfolios as well as teach the 3 and 4 year olds on a weekly basis. Child & Adolescent Development Interns are placed in local middle or elementary schools in a "student-teacher" role or participate as teacher assistants in the EduCorps program at Magruder. In weekly seminars and independent studies, the child development students observe toddlers and study child psychology, creative learning techniques, child safety, plus skills in management and leadership.

Benefits

Magruder students who complete the sequence of Child Development courses may apply for 3-9 credits when enrolling at Montgomery College in the Early Childhood program. In addition, students who already meet the entrance requirements at Montgomery College may have the option of taking entry-level education courses there.

Admission Requirements:

- Be a sophomore
- Have an excellent attendance record
- Maintain at least a 2.5 minimum GPA
- Complete Application and submit 2 teacher recommendations
- Make a commitment to the program

ACADEMY OF EARLY CHILDHOOD EDUCATION

Career Cluster: Education, Training and Child Studies

4 credits

	COURSE	GR	CODES	PREREQUISITE	CREDITS
1	Child Development 1A Child Development 1B	10 10	484700 484800		0.5 0.5
2	Advanced Child Dev. 2A Advanced Child Dev. 2B	11-12	488000 488100	Child Development 1A and 1B	0.5 0.5
3	Advanced Child Dev. 3A Advanced Child Dev. 3B	11-12	488200 488300	Child Development 2A and 2B	0.5 0.5
4	AP Psychology A AP Psychology B	12	233000 233100	Child Development 3A and 3 B	0.5 0.5
5	Advanced Internship Education & Child Studies	12	488400		0.5
6	Dual Credit Advanced Education	12	736900		0.5
7	Internship A (S1) Internship B (S2)	12	781300 781600		0.5 0.5
8	InternshipTriple Per (S1) InternshipTriple Per (S2)	12	782200 782300		1.0 1.0

Contact: Mrs. Virginia Snyder (240) 740-5576

ACADEMY OF ENGINEERING

Project Lead the Way

Career Cluster: Engineering, Scientific Research &
Manufacturing Technologies

5 credits

Please note: Submission of an application along with the satisfactory completion of Algebra I or higher are required for enrollment in the initial cohort/academy class. Math requirements increase as students progress through the academy.

Program Goals

The Academy of Engineering (Project Lead the Way) is designed for students with a strong interest in the field of engineering. Engineers merge and apply the theories of science and mathematics in order to research and develop economical solutions to real world technical problems. Their work is the link between perceived social needs and commercial applications. Project Lead the Way is a nationally recognized curriculum that challenges students of all abilities to become actively engaged in hands-on learning experiences using math, science, and technology in meaningful ways to solve real-world problems. It is designed for all students interested in pursuing a career in the field of engineering and provides experiences that can lead to a wide range of potential careers. Students who apply and are accepted into the academy will be enrolled in cohort classes designed for students who have a math and science aptitude and are specifically interested in engineering.

Introduction to Engineering Design helps develop students' problem-solving skills with emphasis on visualization and communication skills using a computer and 3-D modeling software. **Principles of Engineering** is a broad-based survey course to help students understand engineering and engineering technology. **Digital Electronics** is a course of study in applied digital logic using electronic logic circuits that first are designed and then tested using the latest computer-logic modeling technology. **Aerospace Engineering** includes topics of study such as aerospace information systems, astronautics, rocketry, propulsion, the biology and physics of space science, principles of aeronautics, structures and materials, and systems engineering. **Engineering Design and Development** is the capstone course for students in the Academy of Engineering. Students are required to work in 2-4 person teams and, after researching an open-ended problem and designing a technical solution, they must present and defend their project to a panel of engineers and business leaders for professional review and feedback.

Benefits

Students who participate in the Academy of Engineering will be better prepared for college engineering programs and will be more likely to be successful in these college programs. Students who have an 85% average for a course, receive a 70% or higher on the college section of the final exam and have completed their portfolios, may apply for college credit from participating affiliated colleges. See the **Project Lead the Way** website www.pltw.org/hsprogram for a list of these colleges and for more information.

5 Required Credits for the Academy of Engineering				
	COURSE	CODES	NOTES	CREDITS
1	INTRODUCTION TO ENGINEERING DESIGN A/B (Required)	515200 515300	PLTW class	½ credit/sem.
2	PRINCIPALS OF ENGINEERING A/B (Required)	515000 515100	PLTW Cohort class	½ credit/sem.
3	DIGITAL ELECTRONICS A/B (Required)	515600 515700	PLTW Cohort class	½ credit/sem.
4	AEROSPACE ENGINEERING A/B (Required)	572100 572200	PLTW Cohort class	½ credit/sem.
5	ENGINEERING DESIGN AND DEVELOPMENT A/B (Required)	515800 515900	PLTW Cohort class CAPSTONE COURSE	½ credit/sem.

Contact: Mr. Michael Smith (240) 740-5512

ACADEMY OF FINANCE

Career Cluster: Business Management and Finance

4 credits

Program Goals

The Academy of Finance is for any student interested in learning more about finance and the finance industry. While one of the objectives of the Academy of Finance is to prepare students for a career in business through a combination of coursework and on-the-job experience, the academy is also designed to prepare non-business majors for a secure financial future. Students will learn how to manage and invest their money and to accomplish their financial goals in life, no matter what career they choose. Students who complete this rigorous program will graduate with lifelong skills in business and money management and a certificate of graduation from the National Academy Foundation that oversees this cohort. Non-academy members are able and encouraged to take any of these courses as well.

Courses for the Academy of Finance

	COURSE	GR	CODES	CREDITS
1	Entrepreneur 1A Entrepreneur 1B		545000 545100	0.5 0.5
2	Accounting A Accounting B	10-11	411100 411200	0.5 0.5
3	AP Macro	11-12	231500	0.5
4	AP Micro	11-12	231600	0.5
5	Financial Planning (S1)	11-12	410300	0.5
6	NAF Applied Finance (S2)	11-12	414400	0.5
7	Principles of Finance (S1)	11-12	414300	0.5
8	Banking and Credit (S2)	11-12	410400	0.5
9	Internship in Finance	11-12	410700	0.5
10	Advanced Accounting A, Honors Advanced Accounting B, Honors	11-12	411300 411400	0.5 0.5
11	Internship, NAF	11-12	572000	0.5
12	Internship A Internship B	11-12	781300 781600	0.5
13	Internship A (Double Period) Internship B (Double Period)	11-12	781800 781900	1.0
14	Internship A (Triple Period) Internship B (Triple Period)	11-12	782200 782300	1.0

Students who wish to graduate with recognition from the National Academy Foundation Academy of Finance and MCPS/Magruder HS must complete four credits, one of which must be an internship.

The classes are open to all students.

Contact: Mrs. Virginia Snyder: (240) 740-5576

BROADCAST MEDIA ACADEMY

4 Credits

PROGRAM GOALS

Students in the Broadcast Media program learn about career options in a field that is constantly evolving. In the television studio, analog, tape-based recording technology has been replaced by digital, computer-based recording. International multimedia conglomerates have transformed the industry from a small number of local broadcasting outlets to a wide variety of audiences via hundreds of cable and satellite stations. The explosion of new programming and technology options has opened a myriad of career opportunities for students to pursue.

Course	Codes	Prerequisites
Video Production A Video Production B	517300 517400	Grades 10-12
Electronic Video Field Production	517500 5176000	Video Production
Media, Management & Operations A Media, Management & Operations B	517700 517800	Electronic Video Field Production
Internship — Arts, Humanities, Media, and Communications	571700	See counselor
College Course — Arts, Humanities, Media, and Communications	TBD (1/2 credit)	See counselor
Guided Research — Arts, Humanities, Media, and Communications	531000 531100	See counselor

Contact: Ms. Claire Dickey (240) 740-5515

SCIENCE ACADEMY (7 Credits)

Please note: Students interested in this academy must:

- Submit a written application
- Demonstrate strength in math and science courses (As and Bs)
- Submit two teacher recommendations (math and science)
- Maintain at least a 2.5 minimum unweighted GPA
- Have an excellent attendance record
- Sign a contract committing to the program
- **Earn 7 Credits (6 of which are science) and complete a science school year or summer internship**

Program Goals

It is the objective of the Science Research Academy to provide a rigorous honors program for students who have a strong interest in a career in science. Students in the program will be provided with enriching activities in the field of science, including having the opportunity to compete in county, state and national science competitions. An important aspect of this program is to provide students with an internship experience in a scientific field of interest to them. The capstone experience of this Academy is a choice to complete an independent research project that will be entered in the Montgomery County Science Fair or participate in an internship at a local laboratory.

Required Courses for the MHS Academy of Science & Suggested Course Sequence

Students must agree to take a minimum of **6** science courses. In most cases sequence is negotiable.

Engineering/Physical Science focus

	COURSE	CODES	CREDITS	SUGGESTED ORDER
1	Honors Biology A/B *	362100 362200	1 credit, full year	Grade 10
2	Honors Chemistry A/B *	371100 371200	1 credit, full year	
3	Honors Physics A/B *	382100 382200	1 credit, full year	Grade 11
4	AP Chemistry	375100 375200	2 credits, full year	
5	AP Physics	384100 384200	1 credit, full year	Grade 12
6	Research Project	298100 298200	1 credit, full year	
6	Science Internship	352100 352200	1 credit, full year	
7	<i>Elective options:</i> Honors Anatomy and Physiology; AP Environmental Science; AP Biology; AP Statistics; AP Calculus;		1 credit, full year	Grade 12

Health Sciences focus

	COURSE	CODES	CREDITS	SUGGESTED ORDER
1	Honors Biology A/B *	362100 362200	1 credit, full year	Grade 10
2	Honors Chemistry A/B *	371100 371200	1 credit, full year	Grade 10
3	Honors Anatomy & Physiology Or Honors Physics *	376100 376200 382100 382200	1 credit, full year	Grade 11
4	AP Chemistry DP	375100 375200	2 credits, full year	Grade 11
5	AP Biology DP	365100 365200	2 credits, full year	Grade 12
6	Elective		1 credit, full year	
7	Research Project	298100 298200	1 credit, full year	
8	Science Internship	352100 352200	1 credit, full year	

* PEAC courses fulfill the Honors requirement for this course

Additional Requirements for the MHS Academy of Science: Students are required to complete a summer internship (paid or unpaid), usually between their Junior and Senior year. (A school year internship may also qualify.) The internship must be approved by the MHS Academy of Science Coordinator. Following completion of the internship the student must give a presentation at a conference, enter a science fair competition or be published as a result of their internship experience prior to graduation.

Contact: Mr. Chris Turner (240) 740-5519

MAGRUDER HIGH SCHOOL

DEPARTMENT OF ART

*REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>	
Foundations of Art A	9-12	605500	1	None	4 – 5 major projects	
Foundations of Art B	9-12	605600	2		4 – 5 major projects	
Ceramics 1A	9-12	638100	1		6 – 8 major projects, critiques	
Ceramics 1B	9-12	639100	2		6 – 8 major projects, critiques	
Ceramics 2A	10-12	638300	1	Ceramics 1 A & B	6 – 8 in-depth projects	
Ceramics 2B	10-12	639300	2	Ceramics 2A	6 – 8 in-depth projects	
Ceramics 3A	11-12	638500	1	Ceramics 2 A & B	Independent study and personal concentration*	
Ceramics 3B	11-12		2	Ceramics 3A	6 – 8 major projects	
Advanced Studio/ Ceramics 4 A/B	12	631331 631431	1&2	Ceramics 1 A/B, 2 A/B and 3 A/B	Independent Study in area of individual concentration One-person show, 10+major projects per semester*	
Commercial Art 1A	9-12	640100	1	½ credit Fund Art A/B	4 – 5 major projects, journal	
Commercial Art 1B	9-12	641100	2	Commercial Art 1A	4-5 major projects, journal	
Commercial Art 2A	10-12	640300	1	Commercial Art 1A & B	5+ major in-depth projects, exhibit participation, journal	
Commercial Art 2B	10-12	641300	2	Commercial Art 2A	5+ major indepth projects, exhibit participation, journal	
Advanced Studio/ Commercial Art 3A	11-12	631333	1	Commercial Art 2 A & B	5+ advanced level projects, portfolio development journal, one-person show exhibition	
Advanced Studio/ Commercial Art 3 B	11-12	631433	2	Commercial Art 3A	5+ advanced leve projects, portfolio development journal, one-person show exhibition	
Photo 1A	9-12	634300	1	None	6 major projects, journal, exhibition participation, intro to Photoshop	
Photo 1B	9-12	634400	2	Photo 1A	6 major projects, journal, exhibition participation, intro to Photoshop	
Photography 2A*	10-12	634700	1	Photography 1 A & 1 B	6 major projects, journal, portfolio preparation, advanced Photoshop techniques	
Photography 2B*	10-12	634800	2	Photography 2 A	6 major projects, journal, portfolio preparation, advanced Photoshop techniques	
Photography/Adv Studio 3 A*	11-12	631330	1	Photography 2 A & B	12 photographs/semester in area of chosen interest, journal portfolio development, traditional photography, one-person exhibit	
Photography/Adv Studio 3 B*	11-12	634430	2	Photography 3 A	12 photographs/semester in area of chosen interest, journal portfolio development, traditional photography, one-person exhibit	
Studio Art 1A	10-12	610500	1	Foundations of Art A & B	6 major projects, sketchbook	
Studio Art 1B	10-12	610600	2	Studio Art 1 A	6 major projects, sketchbook, exhibit participation	
Studio Art 2A	11-12	620500	1	Studio Art 1 A & B	6+ major projects, journal, sketchbook, portfolio Development, exhibition participation	

MAGRUDER HIGH SCHOOL

DEPARTMENT OF ART

*REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
Studio Art 2 B	11-12	620600	2	Studio Art 2 A	6+ major projects, journal, sketchbook, portfolio development, exhibition participation
Studio Art 3 A	12	630500	1	Studio Art 2 A & B	6+ major projects in concentration area, journal, sketchbook portfolio development, one-person show exhibition
Studio Art 3 B	12	630600	2	Studio Art 3 A	6+ major projects in concentration area, journal, sketchbook portfolio development, one-person show exhibition
AP Studio Art A **	11-12	648200	1	Studio Art 1 A & B	8+ major projects in concentration and breadth area, journal, sketchbook, portfolio review and submission to AP Board, one-person show exhibition
AP Studio Art B **	11-12	648200	2	AP Studio Art A	8+ major projects in concentration and breadth area, journal, sketchbook, portfolio review and submission to AP Board, one-person show exhibition
AP Studio Art 2D	11-12	648600 647200	1 & 2	Studio Art 1 A & B	8+ major projects in concentration and breadth area, journal, sketchbook, portfolio review and submission to AP Board, one-person show exhibition
AP Studio Art 3D	11-12	648800 647300	1 & 2	Studio Art 1 A & B	8+ major projects in concentration and breadth area, journal, sketchbook, portfolio review and submission to AP Board, one-person show exhibition
AP Art History A	11-12	645600	1	None	Students analyze architecture, sculpture, painting, and the decorative arts within a historical and cultural context, from ancient art to the present.
AP Art History B	11-12	645700	2	AP Art History A	Students analyze architecture, sculpture, painting, and the decorative arts within a historical and cultural context, from ancient art to the present.

Descriptions

*A 35mm manual SLR camera is recommended for Advanced Photography sections. A Digital Camera is recommended for Photography section 1&2.

**Prerequisite for AP Studio Art = 2 years (2 credits of Fine Art) Commercial Art 1A & 1B, Commercial Art 2A & 2B, Studio Art 1A & 1B and Studio 2A & 2B (per MCPS Bulletin).

*** Prerequisite for AP Studio Art 2D = 2 years (2 credits of Fine Art) Foundations of Art A/B and Studio Art 1A & 1B (per MCPS Bulletin).

**** Students, including 9th graders, can take Studio Art 1A or Commercial Art 1A upon portfolio review. (minimum of 5 pieces of art)

MAGRUDER HIGH SCHOOL
DEPARTMENT OF BUSINESS EDUCATION

*REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
Accounting 1A	10-12	411100	1		Projects use accounting software
Accounting 1B		411200	2	Accounting 1 A	Projects use accounting software
Accounting Advanced Honors A	11-12	411300	1	Accounting 1 A & B	Projects
Accounting Advanced Honors B		411400	2	Advanced	Projects, encouraged to take CLEP exam
Financial Planning	10-12	410300	1		Topics include personal finance, credit, investment planning, and taxes.
NAF Applied Finance	10-12	414400	2		Projects
Principles of Finance	11-12	414300	1		Projects
Banking & Credit	11-12	410400	2		Projects
Entrepreneurship A	10-12	545000	1		Projects
Entrepreneurship B		545100	2		Projects
AP Economics Macro	11-12	231500	1		4 projects & textbook assignments
AP Economics Micro		231600	2		4 projects & textbook assignments
Internship, NAF	12	572000	1	Application and Signature req.	At least 5 hours/wk at site plus projects & weekly
<p>College credit may be gained from successful test scores of the College Level Examination Program (CLEP)</p>					

MAGRUDER HIGH SCHOOL

DEPARTMENT OF COMPUTER SCIENCE

* REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/PROJECTS <i>(general guidelines; subject to change)</i>
Found. of Computer Sci. A (Tech Ed Credit)	9-12	291600	1	Geometry	In-class programming 16 major projects
Found. of Computer Sci. B (Tech Ed Credit)		291700	2	Geometry and Computer Programming 1A	
Computer Programming 2A (AP JAVA)	10-12	290100	1	Computer Programming 1B or Teacher recommendation required	Expected to take AP exam
Computer Programming 2B (AP JAVA)	10-12	290200	2	Computer Programming 2A or Teacher recommendation required	
Computer Programming 3A Advanced Topics in Computer Sci.	10-12	296500	1	Computer Programming 2B or Teacher recommendation required	Students will study programming methodology, programming languages/gaming
Computer Programming 3B Advanced Topics in Computer Sci.	10-12	296600	2	Computer Programming 3A or Teacher recommendation required	

Computer Science Sequence- Recommended but not required

Grade 9	Grade 10	Grade 11	Grade 12
Found. of Computer Science A & B	Computer Programming 1A	AP Computer Programming 2A and 2B (AP Java)	Computer Programming 3A and 3B (Advanced Topics in Computers) (Requires AP Java/Comp Prog 2 A/B)
	AP Computer Programming 2A and 2B (AP Java)	Computer Programming 3A and 3B, (Advanced Topics in Computers)	Computer Science Internship

MAGRUDER HIGH SCHOOL DEPARTMENT OF ENGLISH
REFER TO COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
English 9A	9	131100	1	None	3 Argumentative Essays, 3 Narrative Essays, and 2 Informative Essays; reading of short works to support writing instruction.
English 9B	9	131200	2		6 writing assignments (argumentative, narrative, and informative); reading of 2-3 novels, plays
English 9A Honors	9	131300	1	Attainment of objectives of English 8	3 Argumentative Essays, 3 Narrative Essays, and 2 Informative Essays; reading of short works to support writing instruction.
English 9B Honors	9	131400	2	Attainment of objectives of English 9A	6 writing assignments (argumentative, narrative, and informative); reading of 2-3 novels, plays
English 9A PEAC	9	131355	1	Student interest in PEAC during registration process	Tasks similar to honors English 9, with further enrichment, including essays, projects, and presentations
English 9B PEAC	9	131455	2	Attainment of objectives of English 9A PEAC	Tasks as in honors English 9, with further enrichment, including essays, projects, presentations
English 10A	10	132100	1	Attainment of objectives of English 9	3 critical/argumentative paragraphs, 3-4 essays, 2-3 speeches/presentations; 2-3 full-length readings
English 10B	10	132200	2		3 critical or argumentative paragraphs, 3-4 essays, 2-3 speeches/presentations; reading of 2-3 full-length works; preparation for HSA
English 10A (Bridge)	10-12	132340	1	Exit from ESOL or department permission	for students making the transition to standard English curriculum; emphasis on grammar, vocabulary, sentence construction
English 10B (Bridge)	10-12	132440	2		for students making the transition to standard English curriculum; emphasis on grammar, vocabulary, sentence construction; HSA preparation
English 10A Honors	10	132300	1	Attainment of objectives of English 9	3 critical or argumentative paragraphs, 4 essays, 3 speeches/presentations; 3-4 full-length readings
English 10B Honors	10	132400	2		3 critical or argumentative paragraphs, 4 essays, 3 speeches/presentations; reading of 3-4 full-length works; preparation for HSA
English 10A PEAC	10	132355	1	Accepting into PEAC Program via application	Tasks similar to honors English 10, with further enrichment, including essays, projects, and presentations
English 10B PEAC	10	132455	2	Attainment of objectives of English 10A PEAC	Tasks similar to honors English 10, with further enrichment, including essays, projects, presentations
English 11A	11	133100	1	Attainment of objectives of English 10	3-4 critical or argumentative paragraphs; 2 researched essays; 2 presentations
English 11B	11	133200	2		3-4 critical or argumentative paragraphs; 2 essays; 2 performances/presentations
English 11A Honors	11	133300	1		4 critical or argumentative paragraphs; 2 researched essays; 2 presentations
English 11B Honors	11	133400	2		4 critical or argumentative paragraphs; 2 essays; 2 performances/presentations
AP English Lang and Comp A	11	101500	1	English 10, English 11; see also honors policy	4-6 out-of-class essays, 2-4 in-class essays; researched persuasive essay
AP English Lang and Comp B	11	101600	2	Attainment of objectives of AP English 1A	4-6 out-of-class essays, 2-4 in-class essays; AP practice exam; AP exam expected

MAGRUDER HIGH SCHOOL DEPARTMENT OF ENGLISH

REFER TO COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
English 12A	12	134100	1	Attainment of objectives of English 11	3 out of class essays; 2 in class essays
English 12B	12	134200	2		Presentations, in class essays, out of class essays
English 12A Honors	12	134300	1		3-4 out of class essays; 23- in class essays
English 12B Honors	12	134400	2		3-4 out of class essays; 2-3 in class essays; 2 group presentations
AP English Lit. and Composition A	12	101700	1	English 11, AP Lang.and Comp., see also honors policy	4-5 essays (out of class and in class) per nine weeks; reading of high level texts with analysis
AP English Lit. and Composition B	12	101800	2	Attainment of objectives of AP English 12A	4-5 essays (out of class and in class) per nine weeks; varied reading of high level text with analysis; AP exam expected
Introduction of Journalism A	9-12	115033	1		Article writing, research activities
Introduction of Journalism B	9-12	115133	2		
Newspaper 2A	10-12	115233	1	Permission of instructor	Focuses on production of school newspaper; 3-4 production deadlines
Newspaper 2B	10-12	115334	2		
Newspaper 3A	11-12	115233	1		Leads production of school newspaper as member of editorial staff
Newspaper 3B	11-12	115334	2		
Yearbook 1A	10-12	115031	1		Prepares material for school yearbook, including photos, layout, copy, and captions
Yearbook 1B	10-12	115131	2		
Yearbook 2A	11-12	115231	1		Prepares material for school yearbook, including photos, layout, copy and captions
Yearbook 2B	11-12	115232	2		
Yearbook 3A	12	115331	1		Leads yearbook production as editorial staff member
Yearbook 3B	12	115332	2		
Creative Writing A	11-12	113000	1		Daily writing assignments of varied length and style, including film scripts, essays, poetry, short stories
Creative Writing B	11-12	113500			
Theater 1	9-12	692600	1		Improvisation, scene study, performance journals
Theater 2	9-12	692900	2		
Advanced Acting	11-12	691200	1	Permission of instructor	Theatre history, scene study, performance journals
Play Directing	11-12	691400	2		Theatre history, scene study, performance journals, scene directing
Video Production A	10-12	517300	1		Study of media history, practical applications
Video Production B	10-12	517400	2		
Electronic Video Field Production A	11-12	517500	1	Video Production	Produces daily video announcements, along with other projects
Electronic Video Field Production B	11-12	517600	2	Electronic Video field Production A	
Media, Management and Operations	12	517700	1	Electronic Video Field Production	Produces independent special productions for viewing inside and outside of school

English Academic Course Sequence

Students may move from level to level each year

Grade 9	Grade 10	Grade 11	Grade 12
English 9	English 10	English 11	English 12
English 9 Honors	English 10 Honors	English 11 Honors	English 12 Honors
		AP English Language	AP English Language
			AP English Literature

**MAGRUDER HIGH SCHOOL DEPARTMENT OF
ENGLISH for SPEAKERS of OTHER LANGUAGES (ESOL)**

* REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENT/PROJECT (general guidelines; subject to change)
ESOL Level 1A	9-12	120100	1		One projects per quarter and bilingual dictionaries recommended
ESOL Level 1 ½ A	9-12	121700	1	Must take #120100*	
ESOL Level 1B	9-12	121100	2	Must take #121800*	One projects per quarter and bilingual dictionaries recommended
ESOL Level 1 ½ B	9-12	121800	2	Must take #121100*	
ESOL Level 2A	9-12	120200	1	Must take #121900*	One projects per quarter and bilingual dictionaries recommended
ESOL Level 2 ½ A	9-12	121900	1	Must take #120200*	
ESOL Level 2B	9-12	121200	2	Must take #122000*	One projects per quarter and bilingual dictionaries recommended
ESOL Level 2 ½ B	9-12	122000	2	Must take #121200*	
ESOL Level 3A	9-12	120300	1	Resource Approval*	Two projects per quarter and bilingual dictionaries recommended
ESOL Level 3B	9-12	121300	2		
ESOL Level 4A	9-12	120400	1	Resource Approval*	Two projects per quarter and bilingual dictionaries recommended
ESOL Level 4B	9-12	121400	2		
ESOL Level 5A	9-12	120500	1	Resource Approval*	Two projects per quarter and bilingual dictionaries recommended
ESOL Level 5B	9-12	121500	2		
U.S. History A	9-12	211040	1	ESOL Levels 3-5	Bilingual dictionaries recommended for all levels, in class writing.
U.S. History B	9-12	211240	2	ESOL Levels 3-5	
ESOL Lab A	9-12	120600	1	ESOL Levels 1	Bilingual dictionaries recommended for all levels
ESOL Lab B	9-12	121600	2	ESOL Levels 1	Introduction to academic language in class writing
ESOL Biology A	9-12	363140	1	ESOL Levels 3-5	Bilingual dictionaries recommended for all levels
ESOL Biology B	9-12	363240	2	ESOL Levels 3-5	Bilingual dictionaries recommended for all levels
*ESOL Levels are assigned according to departmental recommendation based on the student's language proficiency as determined by tests and class performance.					

**MAGRUDER HIGH SCHOOL DEPARTMENT OF
FAMILY and CONSUMER SCIENCES**
REFER TO MCP'S COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
Child Adolescent Development 1 A*	9-10	484700	1	None	Would you like to work with preschoolers? Are you considering teaching as a career? Do you have a responsible/mature work ethic? In this introductory course, students become part of an education team that works directly with 4 year old children in a lab school setting. You will learn cooperative/group work skills. Students interested in education, pediatric medicine, family law and sociology enroll in this course. After a rigorous training period the students will plan, observe and teach the preschool children. Make a difference in a young child's life and explore teaching as a possible career.
Child and Adolescent Development 1 B*	9-10	484800	2	Child Development 1 A	Continue to build your teaching skills while working with the preschoolers.
Child and Adolescent Development 2 A	10-11	488000	1	Child Development 1 A&B	Planning, teaching and observations of young children. Refining your skills and knowledge from Child Development 1. Developing a portfolio to showcase your work.
Child and Adolescent Development 2 B	10-11	488100	2	Child Development 1 A&B Child Development 2 A	Planning, teaching and observations of your children. Refining your leadership skills and knowledge from Child Development 1. Developing a portfolio to showcase your work. Upon completion of Child Development 2 and certification requirements, students may earn certification in the 90-Clock Hours program. This certification allows a student to obtain a senior staff position. Completion of this course and portfolio can articulate with Montgomery College for up to 9 credits.
Advanced-level Education, Training and Child Studies Internship	11-12	488400	1,2	Child Development 1 A&B Child Development 2 A&B	The Child Development Internship course extends college and career preparation as students work with children in an elementary or middle school field setting. Opportunities are given for preparation of teaching materials, observation of school-age children, review of behavior management techniques, observation of various teaching styles with teacher/student interactions and professional development with their supervising teacher. The skills that are developed and practiced in the Internship will prepare students for college and careers related to teaching and children.
Guided Research – Education, Training, and Child Studies A/B OR (see below)	12	530000 530100	1,2	Child Development 1 A&B Child Development 2 A&B	
Dual Enrollment Option – course at Montgomery College	12	CE0482		Child Development 1 A&B Child Development 2 A&B	

**MAGRUDER HIGH SCHOOL DEPARTMENT OF
FAMILY and CONSUMER SCIENCES**

REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
Hospitality Management					
Culinary Essentials A	10-12	482500	1	None	Offers students opportunities to gain group lab experience to refine their culinary arts skills while building important workplace skills. ProStart® outcomes have been infused in the curriculum (Chef coat \$15)
Culinary Essentials B	10-12	482600	2	Culinary Essentials A	Same as above. Exam fee may apply ProStart®, \$10 exam if given.
International Cultures and Cuisines A	9-12	463000	1	none	Examines the emphasis on food as it relates to the varied cultures and cuisines of the United States of America/special cultural groups. ProStart® outcomes have been infused into the curriculum.
International Cultures and Cuisines B	9-12	464000	2	International Cultures/Cuisines A	Examines the emphasis on food as it relates to the cultures and cuisines of other countries. Exam fee may apply: ProStart 1 exam SerSafe exam. Prostart outcomes have been infused into the curriculum. (Chef coat \$15 (optional)).
Hospitality Management Internship	11-12	481600	1	International Cultures A/B or Culinary Essentials A/B	The Hospitality Management Internship is a unique opportunity for students to gain experience, knowledge and skills related to the hospitality and food service industry.

MAGRUDER HIGH SCHOOL
DEPARTMENT OF MATHEMATICS

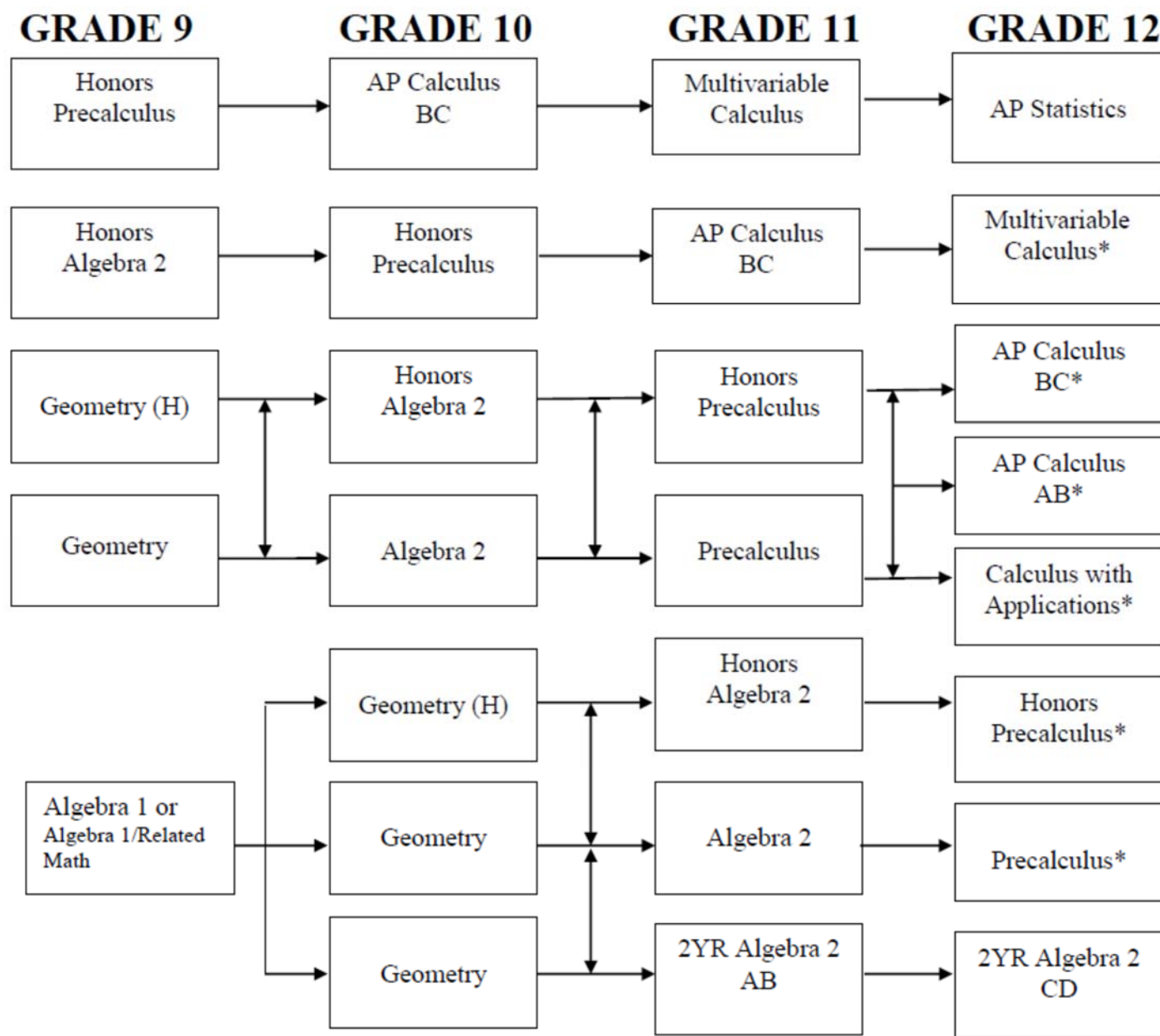
REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/PROJECTS <i>(general guidelines; subject to change)</i>
Algebra 1A Single Period	9-12	311100	1	Recommendation Algebra Prep Teacher	Homework daily 10-30 minutes
Algebra 1B Single Period	9-12	311200	2		
Algebra 2A	9-12	330100	1	Geometry Teacher recommendation	Homework daily 10-30 minutes
Algebra 2B	9-12	330100	2		
Geometry A	9-12	320100	1	Algebra 1A and B	Homework daily 10-40 minutes
Geometry B	9-12	320200	2		
Honors Geometry A	9-10	320300	1	Algebra 1A and B Teacher recommendation	Homework daily 20-40 minutes
Honors Geometry B	9-10	320400	2		
Honors Algebra 2A	9-11	331000	1	Honors Geometry or Geometry Teacher recommendation	Homework daily 20-40 minutes
Honors Algebra 2B	9-11	331100	2		
2 yr Algebra 2A 1 st year	9-12	331500	1	Geometry or teacher recommendation	Homework daily 10-30 minutes
2 yr Algebra 2B 1 st year	9-12	331600	2		
2 yr Algebra 2C 2 nd year	9-12	331700	1	2 yr Algebra 2A/ 2 yr Algebra 2B	
2 yr Algebra 2D 2 nd year	9-12	331800	2		
Quantitative Literacy A	12	312100	1	Algebra 2	Homework daily 10-30 minutes
Quantitative Literacy B	12	312200	2		
Pre-calculus A	10-12	348900	1	Algebra 2 Grade of C or higher	Homework daily 15-60 minutes
Pre-calculus B	10-12	349000	2		
Honors Pre-calculus A	10-12	335000	1	Algebra 2 or Honors Algebra 2; Grade of A or B	Homework daily 20-60 minutes
Honors Pre-calculus B	10-12	335100	2		
AP Calculus AB (AP) A	11-12	345200	1	Pre-calculus (Grade of A or B) or Honors Pre-Cal (C or higher)	Homework daily 10-30 minutes, review AP Test
AP Calculus AB (AP) B	11-12	345300	2		
AP Calculus BC (AP) A	11-12	349100	1	Honors Pre-Cal (A or B)	Homework daily 30-60 minutes, review AP Test
AP Calculus BC (AP) B	11-12	349200	2		
Calculus w/Applications A	11-12	335600	1	Pre-calculus (Grade C or higher)	Homework daily 10-30 minutes
Calculus w/Applications B	11-12	335700	2		
Statistics & Math Modeling A	11-12	332200	1	Algebra 2	Homework daily 20-40 minutes
Statistics & Math Modeling B	11-12	332300	2		
Statistics (AP) A	11-12	332000	1	Honors Algebra 2 (A/B) Pre-Calculus (C or higher)	Homework daily (30-60 minutes); long and short term projects
Statistics (AP) B	11-12	332100	2		
Multivariable Calculus Or Differential Equations A	11-12	304800	1	AP Calculus BC	Homework daily, 30-60 minutes
Multivariable Calculus or Differential Equations A	11-12	304900	2		Homework Daily, 30-60 minutes

High School Mathematics Sequences

Mathematics Graduation Requirement:

Four credits, including one credit in Algebra 1 and one credit in Geometry.



Additional Mathematics Electives

- *Statistics and Mathematical Modeling (2 semesters)
- *AP Statistics (2 semesters)
- Quantitative Literacy (2 semesters)

MILITARY SCIENCE

Army Junior Reserve Officers' Training Corps

Diploma Requirements: These are elective courses

COURSE	CODE	GRADES	PREREQUISITES	WEEKLY WORK	FEES	NOTES
Army Jr. ROTC A & B	794100 794200	9-12				5 SSL/sem
Leadership Education & Train. 2 A/B	794400 794500	10-12	Leadership Education & Training 1 A/B			5 SSL/sem
Leadership Education & Train. 3 A/B	794700 794800	11-12	Leadership Education & Training 2 A/B			5 SSL/sem
Leadership Education & Training 4 A/B	795000 795100	12	Leadership Education & Training 3 A/B			5 SSL/sem

Junior Reserve Officers' Training Corps (JROTC)

This program is for students who are interested in the practice of basic citizenship, customs, traditions, and the exploration of opportunities for service to our nation. Students may select either the Army Junior Reserve Officers' Training Corps (AJROTC) programs offered at Magruder or the Navy programs, Gaithersburg, Kennedy, Paint Branch, and Seneca Valley high schools. No military obligation is required; however, upon graduation students can gain advanced military pay grades upon enlistment, and selection in the Senior Reserve Officers Training Corps. Military academy scholarships may be available for qualified students. Transportation is not provided for students who attend at a site other than the home school.

For more information, contact Counseling Services at 240-740-5560

**MAGRUDER HIGH SCHOOL
DEPARTMENT OF MUSIC**

REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS (general guidelines; subject to change)
Chorus 1A	9-12	671100	1	None	Concerts required, students expected to take both semesters
Chorus 1B	9-12	671200	2	Chorus 1A	
Concert Choir A	10-12	672100	1	Chorus 1 A& B	Concerts required, students expected to take both semesters
Concert Choir B	10-12	672200	2	Chorus 1 A& B	
Chamber Choir A	10-12	674100	1	Audition required & signature required	Numerous concerts required, students required to take both semesters
Chamber Choir B	10-12	674200	2		
AP Music Theory A	10-12	654700	1	Music reading skills Ensemble experience or teacher recommendation	Multiple tests/composition projects/AP tests
AP Music Theory	10-12	654800	2	AP Music Theory A	
Guitar 1A (Begin)	9-12	658500	1	None	Lesson work during class to achieve; mastery of new musical instrument
Guitar 1B (Begin)	9-12	658600	2	Guitar A skill level	
Guitar 2 A	9-12	659100	1	Guitar 1B skill level	Lesson work during class to achieve mastery of advanced guitar skills
Guitar 2 B	9-12	659200	2	Guitar 2A skill level	
Concert Band A	9-12	682100	1	2 yr. band experience or teacher recommendation	Concerts required; students expected to take both semesters
Concert Band B	9-12	682200	2		
Symphonic Band A	10-12	682600	1	MCPS Concert Band skill level/direct or approval/audition	Numerous evening/weekend concerts required; marching band 1st. 9 weeks. Students expected to take both semesters. Fee required \$10.
Symphonic Band B	10-12	682700	2		
Symphonic Orchestra A	9-12	686600	1	MCPS Concert Orchestra skill level; direct or approval / audition	Concerts required, students expected to take both semesters
Symphonic Orchestra B	9-12	686700	2		
Jazz Ensemble A	9-12	687100	1	Direct or approval / audition	Numerous weekend/evening performances required; students required to take both semesters
Jazz Ensemble B	9-12	687200	2		

MAGRUDER HIGH SCHOOL
DEPARTMENT OF PHYSICAL EDUCATION / HEALTH

REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/PROJECTS
Aerobics	9-12	774500	1		None
Aerobics	9-12	774500	2		None
Boys Basketball- Beginner	9	774200	1		None
Boys Basketball-Beginner	9	774200	2		None
Boys Basketball-Advanced	10-12	774231	1		Previous basketball experience
Boys Basketball-Advanced	10-12	774231	2		Previous basketball experience
Comprehensive Health Education	10-12	783500	1		None
Comprehensive Health Education	10-12	783500	2		None
Comprehensive Health Education – Honors	10-12	784100	1		Research project(s)
Comprehensive Health Education – Honors	10-12	784100	2		Research project(s)
Dance/Fitness	9-12	774300	1		None
Dance/Fitness	9-12	774300	2		None
Girls Basketball	912	774232	1		None
Girls Basketball	912	774232	2		None
Girls Weight Training	9-12	775232	1		None
Girls Weight Training	9-12	775232	2		None
Lifetime Fitness - Walking	9-12	772300	1		None
Lifetime Fitness - Walking	9-12	772300	2		None
Net Sports	9-12	773700	1		Volleyball, Badminton, Tennis
Net Sports	9-12	773700	2		Volleyball, Badminton, Tennis
Soccer-Advanced	10-12	774832	1		Must have one year of Soccer 1
Soccer-Advanced	10-12	774832	2		Must have one year of Soccer 1
Soccer-Beginning	9-12	774831	1		None
Soccer-Beginning	9-12	774831	2		None

COURSE TITLE	GR	CODE	SEM	PREREQUISTE	COURSE ASSIGNMENTS/PROJECTS
Soccer - Girls	9-12	774833	1		None
Soccer - Girls	9-12	774833	2		None
Specialty Football	10-12	774600	1		None
Specialty Football	10-12	774600	2		None
Street Hockey	9-12	774400	1		None
Street Hockey	9-12	774400	2		None
Team Sports	9-12	773800	1		
Team Sports	9-12	773800	2		None
Ultimate Games	9-12	775000	1		None
Ultimate Games	9-12	775000	2		None
Volleyball	9-12	775100	1		None
Volleyball	9-12	775100	2		None
Weight Training Boys-Beginning	9	775200	1		None
Weight Training Boys-Beginning	9	775200	2		None
Weight Training Boys-Advanced	10-12	775231	1		Must have beginner weights experience
Weight Training Boys-Advanced	10-12	775231	2		Must have beginner weights experience
Yoga/Stretching	9-12	775400	1		None
Yoga/Stretching	9-12	775400	2		None
Leadership Opportunities in Physical Education	12	770000	1 or 2		

**MAGRUDER HIGH SCHOOL
DEPARTMENT OF SCIENCE**

REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS (general guidelines; subject to change)
Biology 1A	9-12	363100	1		Homework (see *Dissection notice), BCR's, lab reports
Biology 1B	9-12	363200	2	Biology 1A	Homework (see *Dissection notice), BCR's, lab reports
Honors Biology 1A **	9-10	362100	1		Homework, 1-2 labs weekly (see *Dissection notice), BCR's
Honors Biology 1B **	9-10	362200	2	Honors Biology 1A Teacher Recommendation	Homework, 1-2 labs weekly (see *Dissection notice), BCR's
AP Biology A (DP)	11-12	365100	1	Biology (PR) & Chemistry (CR)	AP project, AP exam, lab book purchase, reading assignments, AP labs w/quizzes (see *Dissection notice) purchase workbook
AP Biology B (DP)	11-12	365200	2	AP Biology A	(3) AP exam required
Chemistry 1A	10-12	372100	1	(PR)/Geometry (PR)	Homework, 1-2 labs weekly, problem solving
Chemistry 1B	10-12	372200	2	Chemistry 1A	
Honors Chemistry 1A	10-12	371100	1	(PR)/Geometry (PR)	Homework, 1-2 labs weekly, problem solving
Honors Chemistry 1B	10-12	371200	2	Chemistry 1A	
AP Chemistry A (DP)	10-12	375100	1	Chemistry & Alg 2 (PR)	Homework, for 10 chapters, 8-10 lab report/semester, lab book purchase, AP exam req.
AP Chemistry B (DP)	10-12	375200	2	Chemistry (AP) A	Homework, for 10 chapters, 8-10 lab report/semester, AP exam required
Human Anatomy & Physiology A	11-12	376100	1	Biology (PR) / Chemistry (CR)	Homework, quarterly project, animal dissection required, workbook purchase
Human Anat. & Physiology B	11-12	376200	2	Human Anatomy & Physiology A	(see *Dissection Notice)
Astronomy A	11-12	385600	1	Bio (CR/PR)	Homework, in class projects
Astronomy B	11-12	385700	2		

**MAGRUDER HIGH SCHOOL
DEPARTMENT OF SCIENCE**

REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
Found. of Med. and Health Sci. A	9-10	404400	1		Homework, in class projects
Found. of Med. and Health Sci. B	9-10	404500	2	Found. of Med. and Health Science A	Homework, in class projects
Structures and Functions A	10	404200	1	Found. of Med. and Health Science A/B	Homework, in class projects
Structures and Functions B	10	404300	2	Struct. and Functions A	Homework, in class projects
Honors Physics	9-12	382100	1	Algebra 2 (CR)	Homework, Projects: Engineering
Honors Physics	9-12	382200	2	Physics 1B	Physics Presentation
AP Physics C	11-12	383900	1	Physics (PR)/	Daily problems & Assigned Reading, lab
AP Physics C	11-12	384000	2	AP Physics C A	AP exam required
Honors Forensic Science A	11-12	386400	1	Biology(P R)/Chemistry (CR)	Projects, Homework, Labs & Lab Reports
Honors Forensic Science B	11-12	386500	2	Forensic 1 A	
AP Environmental Science A (SP)	11-12	365900	1	Biology(P R)/Chemistry (CR)	Projects, homework, labs & lab reports, AP exam
AP Environmental Science B (SP)	11-12	366000	2	AP Environmental A	

FOR THE PREREQUISITE COLUMN H=(HIGHLY RECOMMENDED) P=(PREREQUISITE) C=(CO-REQUISITE)

*Dissection Notice – Dissection is one of many instruction methods that may be used in Biology. Students may request from the teacher alternatives to dissection in Biology and AP Biology. Alternatives may include such materials as videos, computer programs, films, filmstrips, models, transparencies, charts diagrams and textbook overlays. Dissections are required in Anatomy and Physiology and alternatives to this course include AP Biology and other advanced level science courses.

MAGRUDER HIGH SCHOOL DEPARTMENT OF SCIENCE

REFER TO COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

Three Next Generation Science Standard (NGSS) credits, including at least one life science (BC) credit and physical science (PC) credit of organized instruction that integrate laboratory components in each. Each credit engages students in the application of the science and engineering practices, the cross-cutting concepts, and the disciplinary core ideas of Earth/space science, life science, physical science (chemistry and physics), engineering, and technology; align to the Maryland High School Assessment for science.

The goal of the science program is for all students to achieve full scientific literacy through standards-aligned problem-based instruction. Students apply content knowledge through scientific and engineering practices to solve non-routine problems. For high school graduation, each student must earn a minimum of three credits in science courses that are aligned to the Maryland Science Standards (Next Generation Science Standards). In selecting courses to meet the 3-credit requirement, students should seek a broad array of learning experiences that include experiences in each of the major disciplines of science (Earth/space, life, and physical science [physics and chemistry]). Recommended course sequences for students entering high school beginning in 2016 are shown in the following diagram. The varying pathways in the diagram are intended to represent options for students as they select core science courses.

to represent options for students as they select core science courses.

CORE PATHWAY			
GRADE 9	GRADE 10	GRADE 11*	GRADE 12
NGSS Biology	NGSS Chemistry	NGSS Physics	AP/IB Science
			Science Elective

Other NGSS-aligned sequences, including options for AP and IB, also are available. For example, other approved pathways might include but are not limited to:

PATHWAY OPTION 1			
GRADE 9	GRADE 10	GRADE 11*	GRADE 12
NGSS Biology	NGSS Chemistry	AP/IB Science	AP/IB Science OR Science Elective

PATHWAY OPTION 2			
GRADE 9	GRADE 10	GRADE 11*	GRADE 12
NGSS Physics OR AP/IB Physics	NGSS Chemistry	NGSS Biology OR AP/IB Biology	AP/IB Science

**indicates students have completed the course requirements to take the MISA at the end of the grade level identified*

Additionally, students must fulfill state requirements for assessment in science at the high school level. Beginning in the 2017–18 school year, students must participate in the Maryland Integrated Science Assessment (MISA) if they have not yet participated in the Biology High School Assessment (HSA). Since MISA will include science ideas from the Earth/space sciences, life sciences, and physical sciences (physics and chemistry), students will participate in MISA during the school year when they are completing their 3-credit requirement.

MAGRUDER HIGH SCHOOL
DEPARTMENT OF SOCIAL STUDIES

REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS
U. S. History 9 A	9	211000	1	None	ECR/BCR writing, primary sources
U. S. History 9 B	9	211200	2		
Honors U. S. History 9 A	9	211100	1	None	BCR/ECR project per quarter, weekly reading assignments, primary source documentation, note-taking, analytical & critical thinking
Honors U. S. History 9 B	9	211300	2		
NSL Government A	10	210700	1	None	BCR/ECR writing, source document analysis
NSL Government B	10	210800	2		
AP NSL Gov. A	10	2104000	1	None	Current events, journals, chapter outlines, intensive note taking, free response questions/papers
AP NSL Gov. B	10	2105000	2	AP NSL A	
Honors NSL Government A	10	212700	1	None	BCR/ECR writing, current events, projects
Honors NSL Government B	10	212800	2		
AP U. S. History A	10-12	211400	1	None	Weekly reading assignments, intensive note-taking. Primary source readings, document-based- questions essays, AP test-taking strategies
AP U. S. History B		212400	2		
Modern World History A	11	222100	1	None	Daily note-taking, BCR's, reading assignments (primary & secondary)
Modern World History B	11	222200	2		
Honors Modern World History A	11	222300	1	None	Ancillary readings, research projects, in-class essays, critical thinking exercises
Honors Modern World History B	11	222400	2		
Psychology A	11-12	230400	1	None	Weekly reading assignments, note-taking, quarterly projects
Psychology B	11-12	231300	2	Psychology A	
AP Psychology A	11-12	233000	1	None	Daily reading, essay writing, quarterly research assignments
AP Psychology B	11-12	233100	2	AP Psychology1	
Ancient and Med.	10-11	221000	1	None	Ancillary readings, research projects, in-class essays, critical thinking exercises
Ancient Med. Civ.	10-11	220800	2		
Sociology A	11-12	230500	1	None	Weekly reading assignments, unit projects
Sociology B	11-12	231400	2	Sociology A	
AP World History A	11	224100	1	None	In-class essays, projects, ancillary reading
AP World History B	11	224100	2		
AP Human Geography A	11-12	233200	1	None	Projects
AP Human Geography B	11-12	233300	2	AP Geography A	
AP Macroeconomics	11-12	231500	2	None	Research Project, Textbook Analysis, Graph Book Development, Essays, Intensive Note-taking
AP Microeconomics	11-12	231600	1		

Social Studies Academic Course Sequence

(3 credits required)

Grade 9	Grade 10	Grade 11	Grade 12
Required:	Required:	Required:	Electives:
U. S. History A	NSL Government A	Modern World History A	AP Human Geography
U. S. History B	NSL Government B	Modern World History B	AP Psychology I
	or	or	AP Psychology II
	AP NSL Gov't A	AP World History A	AP Macroeconomics
	AP NSL Gov't B	AP World History B	AP Microeconomics
		Electives:	AP US History A
	Electives:	AP Human Geography	AP US History B
	Ancient and Medieval	AP Psychology I	Psychology I
	Ancient Mediter Civ	AP Psychology II	Psychology II
		AP Macroeconomics	Sociology I
		AP Microeconomics	Sociology II
		AP US History A	AP European History A
		AP US History B	AP European History B
		Psychology I	
		Psychology II	
		Sociology I	
		Sociology II	
		AP European History A	
		AP European History B	
PEAC	PEAC	PEAC	PEAC
	AP NSL Gov't A	Honors Modern World A/B	Capstone Project
	AP NSL Gov't B	or AP World History A/B	AP US History (anytime)

Three credits in social studies are required for graduation, including 1 U.S. History credit, 1 National, State, and Local Government credit, and 1 World History credit. Courses that satisfy those requirements are listed below.

U.S. History: United States History A and B; AP United States History A and B

National, State, and Local Government (NSL): National, State, and Local Government A and B; AP United States Government and Politics with NSL A and B

World History: Modern World History A and B; AP World History

TECHNOLOGY EDUCATION
Project Lead the Way

COURSE	CODE	GR	PREREQUISITES	WEEKLY WORK	NOTES
Introduction to Engineering Design A (TE)	515200	9-12	Concurrent with Geometry or higher	Design development using 3-D modeling computer software	
Introduction to Engineering Design B (TE)	515300	9-12	Concurrent with Geometry or higher; Successful completion of Intro to Engineering Design A	Design development using 3-D modeling computer software	
Principles of Engineering A PLTW cohort	518700	9-12	Intro Engineering Design A/B, Geometry (Algebra 2 preferred)	Overview of Engineering and Engineering Technology; problem solving by tackling real-world problems	
Principles of Engineering B (TE) PLTW cohort	518800	9-12	Principles of Engineering A	Overview of Engineering and Engineering Technology; Problem solving by tackling real-world problems	
Digital Electronics A PLTW cohort	5156000	10-12	Intro Eng. Design, Principles of Engineering, Algebra 2 or higher	Intro to applied digital logic; explores smart circuits; math and science used to solve real-world problems	
Digital Electronics B PLTW cohort	515700	10-12	Digital Electronics A	Intro to applied digital logic; explores smart circuits; math and science used to solve real-world problems	
Aerospace Engineering A PLTW cohort	572100	10-12	Intro Eng. Design, Principles of Eng., Must be in and continuing with college prep math courses	Aerospace information systems, astronautic, rocketry, propulsion, space science, principles of aeronautics, structures and materials and systems engineering	
Aerospace Engineering B PLTW cohort	572200	10-12	Aerospace A	See above	
Engineering Design / Development A PLTW cohort	515800	12	All courses in the PLTW sequence leading up to this course, college prep math	Academy Capstone	
Engineering Design/ Development B PLTW cohort	515900	12	Engineering Design and Development A	Academy Capstone	
Civil Engineering	425500	10-12	IED, POE, DE, and AE	Student use state-of-the-art Software to solve real world problems and communicate Solutions	
Architecture A/B	425600	10-12	IED, POE, DE, and AE	Student use state-of-the-art software to solve real world problems and communicate solutions	

MAGRUDER HIGH SCHOOL
DEPARTMENT OF WORLD LANGUAGES
REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

COURSE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
Spanish 1A	9-12	171100	1	None	Thematic units from MCPS Program of Studies
Spanish 1B	9-12	172100	2	Spanish 1A	Thematic units from MCPS Program of Studies
Spanish 2A	9-12	171200	1	Spanish 1B	Thematic units from MCPS Program of Studies
Spanish 2B	9-12	172200	2	Spanish 2A	Thematic units from MCPS Program of Studies
Spanish 3A	9-12	171300	1	Spanish 2B	Thematic units from MCPS Program of Studies
Spanish 3B	9-12	172300	2	Spanish 3A	Thematic units from MCPS Program of Studies
Spanish 4A Honors	9-12	173400	1	Spanish 3B	Grammar, reading, listening speaking, culture, literature, pre-AP activities, thematic units
Spanish 4B Honors	9-12	174400	2	Spanish 4A	Grammar, reading, listening speaking, culture, literature, pre-AP activities, thematic units
Spanish 5A Honors	10-12	171500	1	Spanish 4B	Grammar, reading, listening speaking, culture, literature, pre-AP activities, thematic units
Spanish 5B Honors	10-12	172500	2	Spanish 5A	Grammar, reading, listening speaking, culture, literature, pre-AP activities, thematic units
AP Spanish Lang and Culture A	11-12	175900	1	at least Spanish 4-B	Summer reading assignment; grammar, reading, listening, speaking, culture, literature, AP activities, thematic units
AP Spanish Lang and Culture B	11-12	176000	2	AP Spanish Lang A	Summer reading assignment; grammar, reading, listening, speaking, culture, literature, AP activities, thematic units
AP Spanish Lit and Culture A	11-12	176100	1	Spanish 4/SSS 2	Readings from AP reading list; essays involving analysis and interpretation
AP Spanish Lit and Culture B	11-12	176200	2	AP Spanish Lit A	Readings from AP reading list; essays involving analysis and interpretation
Spanish for Speakers of Spanish 1A	9-12	177700	1	Student uses Spanish at home; placement test results	Reading, writing, cultural projects
Spanish for Speakers of Spanish 1 B	9-12	177800	2	SSS 1 A	Reading, writing, cultural projects
Spanish for Speakers of Spanish 2 A	9-12	177900	1	SSS 1 B (or placement test results)	Reading, writing, cultural projects
Spanish for Speakers of Spanish 2 B	9-12	178000	2	SSS 2 A	Reading, writing, cultural projects
Spanish for Speakers of Spanish 3 A H	10-12	178300	1	SSS 2 B (or placement test results)	Reading, writing, cultural projects
Spanish for Speakers of Spanish 3 B H	10-12	178400	2	SSS 3 A	Reading, writing, cultural projects

MAGRUDER HIGH SCHOOL
DEPARTMENT OF WORLD LANGUAGES
REFER TO MCPS COURSE BULLETIN FOR SPECIFIC COURSE DESCRIPTIONS

SE TITLE	GR	CODE	SEM	PREREQUISITE	COURSE ASSIGNMENTS/ PROJECTS <i>(general guidelines; subject to change)</i>
French 1A	9-12	161100	1	None	Thematic units from MCPS Program of Studies
French 1B	9-12	162100	2	French 1A	Thematic units from MCPS Program of Studies
French 2A	9-12	161200	1	French 1A	Thematic units from MCPS Program of Studies
French 2B	9-12	152200	2	French 2A	Thematic units from MCPS Program of Studies
French 3A Honors	9-12	163300	1	French 2B	Thematic units from MCPS Program of Studies
French 4A Honors	9-12	163400	1	French 3B Honors	Grammar, reading, listening speaking, culture, literature, pre-AP activities, thematic units
French 4A Honors	9-12	163400	1	French 3B Honors	Grammar, reading, listening speaking, culture, literature, pre-AP activities, thematic units
French 4B Honors	9-12	164400	2	French 4A Honors	Grammar, reading, listening speaking, culture, literature, pre-AP activities, thematic units
French 5A Honors	10-12	161500	1	French 4B Honors	Grammar, reading, speaking, culture, literature, pre-AP activities, thematic units
French 5 B Honors	10-12	162500	2	French 5A Honors	Grammar, reading, speaking, culture, literature, pre-AP activities, thematic units
AP French Lang and Culture A	11-12	163500	1	At least French 4	Grammar, reading, speaking, culture, literature, AP activities, thematic units
AP French Lang and Culture B	11-12	163600	2	French Lang AP A	Grammar, reading, speaking, culture, literature, AP activities, thematic units
French 6 A Honors	11-12	161600	1	French 5-B	Reading, speaking, culture, literature
French 6 B Honors	11-12	162600	2	French 6-A	Reading, speaking, culture, literature

Career Themed Programs

Philosophy

Career-themed programs provide rigorous programs through which students can develop the skills and knowledge necessary to make informed decisions concerning education, careers, and a path of lifelong learning. Career clusters form the foundation for delivering instruction around the nationwide research-based model of small learning communities. Career-themed programs pair rigorous academics and applied learning to ensure that all students are prepared to pursue their interests upon graduation from high school.

Important Information

Students seeking to enroll in a career development program that includes a work-based learning component or internship 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 Career and Technology Education complete program requirements carefully for specific work-based learning component guidelines. Students attending a Career and Technology Education complete program at a location other than their home school are advised to consult with their guidance counselors to ensure that the proper amount of transportation time is allocated within their schedule.

The Career Themed Programs offered to Magruder High School students include:

NAF Academy of Finance (4 credits required)

The NAF Academy of Finance is a national network of education, business, and community leaders who work to ensure high school students are college, career, and future ready. In this program, students receive intensive coursework in economics and business principles. For more information, visit www.naf.org. This program is currently at Albert Einstein, Gaithersburg, Magruder, Northwest, Paint Branch, and Watkins Mill high schools.

411100/411200	Accounting A/B
410300	Financial Planning (Semester 1)
414400	NAF Applied Finance (Semester 2)
414300	Principles of Finance (Semester 1)
410400	Banking and Credit (Semester 2)
572000	Internship, NAF (Capstone option)
	Capstone options available via AP Economics (Micro/Macro) or NAF Entrepreneurship (S1) and International Finance (S2)

Business Administration - Accounting - Career Pathway Program (4 credits required)

The Business Administration - Accounting program provides students with a comprehensive study of rigorous pathways in Accounting or Business Management. These programs provide students with accounting principles and the application of these principles to a wide range of business situations while developing a strong foundation in business operations. Students learn how to organize, finance, establish, operate, and manage a small business.

545000 545100	Entrepreneurship and Business Management 1 A/B
411100 411200	Accounting A/B
411300 411400	Accounting, Advanced A/B, Honors
546900 547100 547200 547300 547400 547500	Internship, Business A/B Internship, Business A/B (Double period) Internship, Business A/B (Triple period)

Early Child Development (4 credits required)

Students in the Early Child Development program work with children in a variety of settings and study child development from the prenatal through adolescent stages. Knowledge of physical, intellectual, language, social, and emotional development is applied through planning sessions, teaching, observing, and studying 3-and 4-year olds in the child development laboratory. Students develop competence in creative teaching techniques.

484700 484800	Child and Adolescent Development 1 A/B
488000 488100	Child and Adolescent Development 2 A/B (Advanced-Level)
484400	Advanced-level Education, Training, and Child Studies Internship A/B
530000 530100	Guided Research – Education, Training, and Child Studies A/B
CE 0482	Dual Enrollment Option - Course taken at Montgomery College -

Teacher Academy of Maryland

The Academy for Teacher Education program prepares students for further education and careers in the education profession. The program consists of four high school credits, in the process of being developed, that focus on teaching as a profession, human growth and development, learning theory, and curriculum and instruction. These credits are designed to articulate to a Maryland post secondary teacher education program. Upon completion of the program and passing the ParaPro test, high school graduates are ready for employment in the teaching profession.

484700 484800	Child and Adolescent Development 1 A/B
487000 487100	Teaching and Learning A/B

Hospitality Management - Career Pathway Program (4 credits required)

The Hospitality Management program offers students opportunities to pursue interests and gain proficiency in all aspects of the food industry, preparing them for a variety of career options. The need for dietary consultants, food scientists, nutritionists, chefs, food service managers, and educators continues to expand. Nutrition, food safety, and sanitation are emphasized as students practice all aspects of meal planning and preparation. ProStart outcomes have been infused into the curriculum, providing students with authentic work-based skills. Students take the ProStart and ServSafe exams for certification. Lab and exam fees may apply.

463000 464000	International Cultures and Cuisines A/B
482500 482600	Culinary Essentials A/B
481600	Internship, Hospitality Management

**Fire and Rescue Services/Emergency Medical Technician - Career Pathway Program
(3 credits required)**

The Fire and Rescue Services/Emergency Medical Technician program provides students with training at the Montgomery County Fire and Rescue Training Academy. Students can earn local and national certifications that enable them to work side by side with Montgomery County fire and rescue staff as they provide fire and rescue emergency services. Students who successfully complete the program may apply up to nine credits when enrolling in the Montgomery County Fire Science Program. Each course in this program is taken concurrently with a field-based internship at a sponsoring local fire department and supervised by Montgomery County Fire and Rescue staff. Students must have a 2.0 GPA, be 16 years old, complete an application, and pass the National Fire Protection Agency physical examination to enroll in the program. To remain in the program, students must maintain a 2.0 GPA and a 90 percent attendance rate within the program. Failure to score 70% (or equivalent) on any exam will result in dismissal from the program. Students should schedule time for travel in the program. Transportation is provided.

542300	Essentials of Fire Fighting, Double Period
542100	Internship, Essentials of Fire Fighting A
542400	Fire and Rescue Techniques, Advanced, Double Period
542200	Internship, Advanced Fire and Rescue Techniques B
545300	Emergency Medical Technician/Basic
399300 399400 280200 280300	Emergency Medical Technician/Basic-Science A/B (SC) Emergency Medical Technician/Basic-Science A/B (SC)
545800 545900	Internship, Emergency Medical Technician/Basic A/B

College / Career Research and Development - CCRD (4 credits required)

The cooperative work experience program links students with on-the-job training where they work with industry professionals and gain first-hand experience in a career area of their choice. Students earn a salary while working with a local business or government agency. The classroom and work site are integrated for a dynamic orientation to careers and postsecondary education.

809200 809300	College/Career Research and Development A/B
806500 806600	Career Seminar A/B
544100 544200	Site Based Work Training A/B Double Period

Career Education / Internships

781300 781600	Internship, Student A/B
781800 781900	Internship, Student A/B Double Period
782200 782300	Internship, Student A/B Triple Period

Thomas Edison High School Of Technology

Program Offerings ***

2019-2020

Thomas Edison High School of Technology is the keystone Institute for College and Career Readiness. As you begin to develop your high school graduation plan, we encourage you to work closely with your counselor to ensure you are on schedule to earn the required credits to graduate on time. All TEHST programs offer 1.5 credits per semester. Most courses are career development completer programs. Students may elect to take the first year of two-year programs if they are *not* using the course as a program completer. Students interested in Cosmetology must begin classes in grade 10, since it is a 3-year program. Courses articulated with Montgomery College for college credit are in *italic* type. Advance level courses are marked with a “+”.

<u>Course</u>	<u>Grade s</u>	<u>First Year</u>		<u>Second Year</u>	
Foundations of Automotive Technologies (TP)	9-12	5045	5046		
Auto Body Repair Technology (TP)	9-12	5694	5695	5696	5697
<i>Automotive Technology (TP)</i>	9-12	5688	5689	5690	5691
Cosmetology (TP) (3 year program)	10-12	5583(TP)	5647(TP)	5645(TP)	5646(TP)
		<u>Third Year</u>	5587(TP)	5648(TP)	
<i>Principles of Architecture (TP) and CAD Technology (Drafting)</i>	9-12	5103	5104	5106	5107
<i>Print Technologies & Digital Graphics (TP)</i>	9-12	5118	5119	5121+	5122+
Academy of Hospitality and Tourism (AOHT) (SP)	9-12	5398	5399	AOHT Internship Required at Home School	
**requires three codes for both semesters					
Hospitality for Academy of Hospitality/Tourism (SP)		5401	----		
Systems for Academy of Hospitality/Tourism/ (SP)		----	5402		
Travel Geography for Academy of Hospitality/Tourism (SP)		5403	5407		

	Year 1	S1	S2	Year 2	S1	S2
<i>Foundations of Building (TP) and Construction Technologies (FBCT)</i>	9-12	5561	5562			
<i>Intro Carpentry (DP) Requires two codes</i> Carpentry (SP)	9-12	5098 (DP) 5099 (SP)	5100	5639		5640
<i>Intro HVAC Heating/Air Condition (DP)</i> Requires two codes	9-12	5094 (DP) 5095 (SP)	5120	5127		5128
<i>Intro Masonry</i> Requires two codes	9-12	5698 (DP) 5699 (SP)	5568	5565		5566
<i>Intro Electricity (Constr)</i> Requires two codes	9-12	5096 (DP) 5097 (SP)	5110	5595		5596
<i>Intro Plumbing</i> Requires two codes	9-12	5601 (DP) 5602 (SP)	5608	5605		5606
<i>Academy of Health Professions</i> (Foundations of Medicine A/B)	11	4044 (SP) 4045 (SP)	4043+ 5448+			
(Structure and Functions A/B)	11	4042+	5449+			
<i>Medical Science w/Clinical App (DP)</i> <i>Research Biomed (SP)</i> Requires two codes	12			3889 (DP)+ 3875 (SP)+		3890 (DP)+ 3876 (SP)+
<i>Cybersecurity (TP)**</i> <i>Prerequisite: AP Comp Sci, AP Comp Sci</i> <i>Java or Network Ops</i>	10-12	2822+	2823+			
<i>Network Operations I Theory</i> <i>Network Operations Practicum</i>	10-12	4239 (DP) 4240 (SP)	4244 (DP) 4241 (SP)	418700 – homeschool internship 418800 – independent research study or Cybersecurity (6 credits) required for PC		
<i>Law Enforcement</i> Requires three codes	11 or 12	5200 (SP) 5202 (SP) 5204 (SP)	5201 (SP) 5203 (SP) 5205 (SP)	4 th credit required for program completer		
<i>Professional Restaurant Mgmt. 1 (DP)</i> <i>Professional Restaurant Mgmt. 2 (SP)</i>	10-12	4823 (DP) 4831 (SP)	4824 (DP) 4832 (SP)			

EDISON SSL HOURS - Automatic w/ Passing Grade – 15 per semester

Academy of Hospitality and Tourism
Auto Technology
Foundations of Auto Tech
Auto Body
Carpentry
Cosmetology
Electricity
Graphics
HVAC
Plumbing
Masonry
Nails
Network Operations
Restaurant Management

Exception

Architecture – 15 SSL hours only during 1st semester of the second year

- Foundations of Building and Construction Technologies is a one semester course and the following semester and the following semester the student enrolls in one of the five construction speciality courses.
- Foundations of Automotive Technologies is a one semester course and the following semester the student enrolls in one of two automotive specialty courses.
- Masonry is a two-year course. **New** – A student may enroll during the second semester of the school year.
- Abbreviations – Single Period (SP); Double Period (DP); Triple Period (TP)

Guide to Services for Students

School Counseling Services Office

Kerry Oswald,
Resource Counselor

Located across from the main office, the School Counseling Services Office is staffed by school counselors and support staff who offer services to students in the following areas:

- Academic counseling/study skills
- Course selection/scheduling
- AP testing information
- Four-year academic program planning
- College/career information
- Advocacy
- Crisis intervention counseling
- Personal counseling (individual or small groups)
- Summer school information
- High School Intervention classes

Registrar

Donte Gassaway-Fields

Located in the School Counseling service office, the Registrar's Office maintains and processes selected information for the following:

- Transcript requests
- Report cards
- New student enrollments and withdrawals
- Change of address or phone number
- Provide requested college application information

College/Career Information Center

Julie Yang, Coordinator

Located across from the west door of the Cafeteria and at the back of the Main Office, the College/Career Information Center assists students in their college and career planning by maintaining information and providing services such as:

- College search information
- Family Connection
- Scholarship information
- Financial aid information
- Schedules of in-school and area opportunities to meet with college representatives and area college fairs
- College testing information
- Career assessment and planning information
- Technical school information
- Military information
- GED information
- Work permits

Academic Supports

National Honor Society (NHS) Student Tutoring

Academically successful student volunteers offer tutoring in all subjects. NHS tutoring is available during lunch and from 2:50-4:20 p.m. on Tuesdays, Wednesdays, and Thursdays.

Math Honor Society

National Math Honor Society (Mu Alpha Theta)

Students who are highly successful in Mathematics tutor Tuesday, Wednesday, and Thursday afternoon from 2:50-3:50 p.m. in the Math Office.

French Honor Society

Students who have been successful in French tutor by appointment.

Contact: Ms. Anne Bastings

Spanish Honor Society

Students who have been successful in Spanish tutor Tuesday and Thursday afternoons from 2:35-3:15 p.m.

AP Crash Courses Sessions

One of the supports in place for AP students are “Crash Courses” that cover general academic skills students need to master to be successful in their AP course. Sample topics include:

Crash Course: Read Like a Champ!

When reading Harry Potter, all you need are fuzzy socks and hot chocolate. When reading for school, keep the socks and cocoa, but grab those highlighters! Learn to read with a purpose, create thought provoking outlines, and answer any question coming your way with evidence! Learn to source the documents by considering the author, time period, and purpose!

Crash Course: Write Like a Champ!

When it comes to academic writing, it's all about the evidence. Learn to create a strong thesis, develop claims, and prove your argument using evidence, all in your own words! Use your words to change the world (or at least someone's opinion) about any topic!

Teacher Office Hours

All teachers have office hours posted in their classrooms and on class syllabi and are available by appointment to meet with students for extra help.

Activity Buses

Activity Buses run on Tuesdays, Wednesdays, and Thursdays, leaving Magruder at 4:35 p.m. Because there are fewer activity buses than regular buses, the routes are not the same as students' regular buses and in many cases it will take

longer for students to get home. Activity buses do not operate on a half-day or before a school holiday.

Advanced Placement Exams

- Students who take AP courses should take an AP exam at the conclusion of the course.
- **Given once a year, in May.**

AP exam cost is approximately \$94. Students with financial need should consult with their counselors about fee reductions available from the College Board and the State of Maryland.

- **Exams are scored on a 1 (low) to 5 (high) scale.**

Most colleges require at least a score of 3 on an AP exam in order to give college credit or to use the exam for placement purposes. Many colleges may require higher scores. In order to receive college credit some colleges require students to take a subsequent course in that subject area. In addition, some colleges limit the number of AP credits that can be counted toward a college degree. Particular colleges' AP [credit policy information can be found at www.collegeboard.com/ap/](http://www.collegeboard.com/ap/) credit policy.

- **Most exams are 2-3 hours long**
- **Exams have both multiple-choice and free response questions**
- **For more information see www.collegeboard.com/student/testing/ap/subjects.**

Students should review [Bulletin for AP Students and Parents](#) at this site for the most comprehensive information about the AP Exams.

- **There are approximately 35 different AP exams. Check the Course Bulletin to see which AP courses are offered at Magruder.**

AP Scholar Awards

The College Board's AP Program offers a variety of Scholar Awards to recognize students' achievements on these exams. There is no monetary award, but the achievement is acknowledged on students' score reports. Except for a few students who manage to take 8 AP exams by the end of their junior year, most students receive notification of National AP Scholar Awards when they are college freshmen.

AWARD	SCORES	NO. of EXAMS
AP Scholar	3 or higher	3 or more
AP Scholar with Honor	3.25 avg and	all exams taken
	3 or higher	4 or more
AP Scholar with Distinction	3.5 avg and	all exams taken
	3 or higher	5 or more
National AP Scholar	4 avg and	all exams taken
	4 or higher	8 or more
AP State Scholar	Granted to one female and one male student in each U.S. state and DC with grades of 3 or higher on the greatest number of exams (at least 3) and then the highest average grade (at least 3.5) on all AP Exams taken.	

Accommodations:

Accommodations and alternative test formats are available to students with disabilities on all of these tests. Beginning in January 2017, the College Board will use a new streamlined process for requesting accommodations for students. The new process means that the College Board is allowing automatic approval of accommodations in more situations. Students need to apply to the College Board in order to receive accommodations on the PSAT, SAT, SAT Subject Tests, and AP Exams. Once the College Board has granted a student accommodations, he or she does not need to apply again for subsequent tests; the grant of accommodations is valid for all College Board tests. Students seeking accommodations on the ACT must apply to the ACT. A student should apply well in advance of the first test for which he or she will need accommodations. It is suggested that the application to the College Board be made in the late spring of the freshman year if the student will need accommodations on the sophomore practice PSAT in October. Even though this administration of the PSAT is just a practice test, since it is graded by the Educational Testing Service of the College Board, a student will not receive accommodations unless they have been officially approved.

TCCi Family Connection

TCCi is an Internet-based program, provided to all students by MCPS, designed to help students and parents navigate through the college application process while keeping track of their applications and scholarships. Students also can easily access information about colleges, look up acceptance rates at colleges of previous Magruder students, and investigate scholarships. In addition, students create a resume and a game plan for their goals after high school. Students' PSAT, SAT, SAT Subject, ACT, and AP test scores are automatically posted here if they have taken these tests. The Resources page is an extensive list of links to College Search sites, Financial Aid sites, Test Prep sites, College Sports sites, and Military (ROTC) sites. In order to access TCCi Family Connection, students need to go to the Career/College Center in order to get a personal registration code (which is assigned by TCCi). Once students have their codes, they should go to Magruder's TCCi main page, tcci.naviance.com/magruder and register by providing their email addresses and passwords. Students can create an account for their parents in the "About Me" section under "My Profile."