

# POTTSGROVE HIGH SCHOOL

## PROGRAM OF STUDIES



# 2024 - 2025

Pottsgrove High School \* 1345 Kauffman Road \* Pottstown, PA 19464  
(610) 326-5105 \* Fax: (610) 970-2111

Updated Jan 2024

## **SPECIAL MESSAGE TO PARENTS AND STUDENTS**

It is very important that parents and students understand the importance of planning an educational program and then selecting courses of study to satisfy those plans. The entire scheduling of classes, the purchasing of supplies, textbooks and equipment, and the assignment of teachers is based on the information parents and students provide to the administration through the course selection requests. It is, therefore, necessary that courses be carefully selected. Please note, the scheduling process is extremely complex, and we strive to fulfill all requests, however there are occasions we are unable to make this happen due to scheduling constraints and enrollment numbers.

This Program of Studies is a comprehensive collection of the curriculum and course offerings of the Pottsgrove High School. As you review this guide, please select courses that will challenge you as a learner. By challenging yourself academically, you prepare yourself for life beyond graduation. It is important that each student reviews their life goals and works with their parents or guardians to choose the best path to accomplish these goals. As you work through this process, remember our Teachers and Counselors are invaluable resources as you select courses and work to achieve your goals.

In the process of selecting courses, please be sure to review specific course criteria and prerequisites. In addition to the courses at PGHS, students should examine the opportunities at the Western Montgomery Career and Technical Center. They provide a wide variety of areas of study that are rigorous and help to equip students for careers and college.

Find ways to intellectually challenge yourself as you make your way through your high school journey!

### **Administrative Contacts**

#### **District Personnel:**

**Dr. David Finnerty**  
Superintendent

**Mrs. Deborah Klahold**  
Business Administrator

**Mr. Daniel I. Vorhis**  
Director of Education & Assessment

**Dr. Ann Marie Lucas**  
Director of Pupil Services

**Mrs. Erika Hinkle**  
Supervisor of Special Education K-5

**Ms. Paige Petrillo**  
Supervisor of Special Education 6-12

**Mr. Jeff Buettler**  
Director of Technology

**Mrs. Amy Thompson**  
Director of Human Resources

#### **Board of School Directors:**

**Mrs. Tina McIntyre**  
President

**Mr. Jay Strunk**  
Vice-President

**Mrs. Ashley Custer**  
Secretary

**Mrs. Patricia Grimm**  
Treasurer

**Mr. Jim Lapic**

**Dr. Charles Nippert**

**Mr. Bill Thompson**

**Ms. Tayna Taylor**

**Mrs. Annique Ruiz-Brown**

#### **High School Personnel:**

**Dr. Jeff Smith**  
Principal

**Mr. Chris Stein**  
Assistant Principal

**Mr. Mike Zacharda**  
Dean of Students

#### **Guidance Counselors**

Mrs. Jill Bossler  
Mrs. Lisa Childs  
Mrs. Kyra Ebert  
Mr. Stephan Kincaid

(The Board declares it to be the policy of this district to provide an equal opportunity for all students to achieve their maximum potential through the programs offered in the schools regardless of race, color, age, creed, religion, gender, sexual orientation, ancestry, national origin, marital status, pregnancy and handicap/disability.)

The mission of the Pottsgrove School District is to educate and inspire all students to excel as productive, responsible citizens, and lifelong learners.

- Our students will attain their fullest potential while exhibiting a love of learning, a passion for excellence, and respect for humanity.
- Our students will demonstrate proficiency relative to state and district standards.
- Our graduates will be productive contributors to a changing global society.



## So, what's new for course selection for 24-25?

### Art courses

- Changing with the times, the Art Department will integrate photography, graphic design, and animation into new Digital Arts courses (Levels I and II). These courses will give students exposure with all three areas while incorporating skills and design from each.

### Music courses

- The music department will add Modern Band, replacing Music Uncharted, with more focus on creating and performing in small groups. Additionally, due to the popularity and demand of our Guitar course, we will be offering a Guitar II course for the 24-25 school year.

### Social Studies

- General Psychology will be a new elective offering in our Social Studies Department. This course promises to be a journey of the inner workings of your mind as well as an exploration of the individual.

### Physical Education

- Due to the increasing popularity of various recreational activities, the Physical Education Department will be offering a Racquet Games elective. The goal of this course is to provide students with knowledge and skills necessary to pursue racquet sports as a life-long activity.

## TABLE OF CONTENTS

INTRODUCTION	2
COURSES OF STUDY	2
GRADUATION REQUIREMENTS	2
Pennsylvania Act 158 Graduation Proficiency Requirements	2
GUIDANCE SERVICES	3
COURSE PREREQUISITES	3
COURSE CHANGES AND WITHDRAWLS	4
GRADING	4
COURSE LEVELS	5
PROGRAMS	5
ADVANCED PLACEMENT	5
DUAL ENROLLMENT OVERVIEW	6
HONORS COURSES	7
SPECIAL EDUCATION/GIFTED EDUCATION	7
VIRTUAL EDUCATION – POTTS GROVE VIRTUAL ACADEMY	7
WESTERN MONTGOMERY CAREER & TECHNICAL CENTER	8
COLLEGE PLANNING GUIDE	9
COLLEGE APPLICATION PROCESS	10
COURSE DESCRIPTIONS	12
CORE SUBJECTS	12
ENGLISH	12
MATHEMATICS	16
SCIENCE	20
SOCIAL STUDIES	23
ELECTIVES	29
ART	29
BUSINESS	32
COMPUTER SCIENCE	32
FAMILY AND CONSUMER SCIENCE	33
GENERAL	34
GIFTED	36
HEALTH AND PHYSICAL EDUCATION	36
MUSIC	37
TECHNOLOGY & ENGINEERING EDUCATION	39
WORLD LANGUAGES	39
MCCC DUAL ENROLLMENT	42
WMCTC COURSE DESCRIPTIONS	43
CAREER PATHWAYS	48

## INTRODUCTION

### **COURSES OF STUDY**

The high school journey commences in 8th grade with the selection of 9th grade courses. Individual selections should be based on interests, ability, and career goals. The work in the ninth grade lays the foundation for the remaining years in high school. A passing grade must be maintained in all required and elective subjects so that the student may continue to work toward earning credits for graduation.

An explanation concerning the program of studies includes the following:

The school day consists of seven (7) class periods plus a lunch on a 6-day cycle - A, B, C, D, E and F (example: Monday - A, Tuesday - B, Wednesday - C, Thursday - D, Friday - E, Monday - F, Tuesday A, etc.). Each class period is 50 minutes long.

Students must have a minimum of 6 credits each year unless they are ahead of schedule to meet graduation requirements.

### **GRADUATION REQUIREMENTS**

Completion of a program of studies approved by the Pennsylvania Department of Education is the basis for awarding the high school diploma. Pottsgrove School District, in compliance with regulations of the State Board of Education, has established graduation requirements for grades 9-12 which include specific planned courses required by the state. In grades 9 through 12, every student shall obtain at least **23.49** units of credit. (Western Center students require 23.34 credits.)

Credit Breakdown

Units of Credit	Course Title
4.0 Credits	English
3.0 Credits	Mathematics
3.0 Credits	Science
4.0 Credits	Social Studies – Civics or AP Govt & Politics, as well as American History are required for graduation. Western Center students are required to take only 3 credits of Social Studies
2.0 Credits	Arts or Humanities. Subjects that embrace art, literature, history, philosophy, or additional courses in English and Social Studies. This also includes World Language classes. Does not apply to Western Center students.
1.49 Credits	Health & Physical Education (Western Center Students 1.34)
6.0 Credits	Electives - Students select additional courses from among those approved for credit toward graduation by the school district, including approved career and technical education courses.

### **Pennsylvania Act 158 Graduation Proficiency Requirements**

The Pennsylvania Department of Education has outlined the following pathways to meet the state Keystone Exam Proficiency Requirements. Students beginning with the Class of 2023 must complete the requirements laid out by ONE of the following pathways in order to achieve graduation from high school.

#### **Keystone Proficiency Pathway**

- Proficient or Advanced in Algebra I, Biology, and Literature

#### **Keystone Composite Score Pathway**

- Composite Keystone Score is 4452 or greater
- Proficient or Advanced in at least 1 Keystone Exam
- No Score is Below Basic

#### **Career & Technical Education Concentrator (WMTC Students)**

- Earn a 65% in the Keystone content course in which student did not earn proficiency (Algebra I, Biology, and English 10)\*
- Industry-based competency certification
- Likelihood of industry-based competency assessment success
- Readiness for continued engagement in Career and Technical Education (CTE) Concentrator program of study

#### **Alternative Assessment Pathway**

- Earn a 65% in the Keystone content course in which student did not earn proficiency (Algebra I, Biology, and English 10)\*  
And 1 Piece of Evidence from the list below

- Attainment of one alternative assessment score or better:
  - PSAT = 970 SAT = 1010 ACT = 21 ASVAB AFQT = 31
- Attainment of Gold Level or better on ACT WorkKeys
- Attainment of a 3 or better on AP Exam(s) related to each content area in which the student is less than proficient
- Successful completion of dual-enrollment course(s) related to each Keystone content area in which the student is less than proficient
- Successful completion of a pre-apprenticeship program.
- Acceptance into a 4yr Institution of Higher Education (IHE) for college-level coursework

### Evidence Based Pathway

- Earn a 65% in the Keystone content course in which student did not earn proficiency (Algebra I, Biology, and English 10)\*

3 Pieces of Evidence from the list below:  
(ONE or more from the first five & No more than TWO from the last five)

- Attainment of Silver Level or better on ACT WorkKeys
- Attainment of 3 or better on any AP Exam
- Successful completion of any dual-enrollment or postsecondary course
- Industry recognized credentialization
- Acceptance into an other-than-4yr Institution of Higher Education (IHE) for college-level coursework
  
- Attainment of Proficient or Advanced on any Keystone Exam
- Successful completion of a service learning project
- Letter guaranteeing full-time employment or military enlistment
- Completion of an internship, externship, or cooperative education program
- Compliance with NCAA Division II academic requirements

\*Students who do not earn a 65% in the Keystone content course in which the student did not earn proficiency (Algebra I, Biology, and/or English 10) will be required to complete remediation in order to meet the district established grade based requirements.

### GUIDANCE SERVICES

The counseling staff has acquired special skills to work with students individually or in groups to help them solve problems and plan for the future. Students are urged to take advantage of their counselor's services by making appointments with them. Students may stop in the guidance office to schedule an appointment in the morning between 7:15 and 7:30 am, during lunch, during study halls and at the end of the day between 2:17 and 2:45 pm (only those students not taking bus transportation). Students may also email their counselor directly. All students have been given an account on Naviance, an on line Career and College tool that can help students plan for their future. This program can assist students and families in identifying future goals, which can often drive current course selection choices. Naviance should be accessed via ClassLink (<https://myapps.classlink.com/home>). Class Link houses all necessary online tools for students including Naviance Student, Powerschool, Schoology and more.

Counselors: Jill Bossler (jbossler@pgsd.org) - students with last names A - E  
 Stephan Kincaid(skincaid@pgsd.org) - students with last names F - Le  
 Kyra Ebert (kebert@pgsd.org) - students with last names Li - Ror  
 Lisa Childs (lchilds@pgsd.org) - students with last names Ros - Z

### COURSE PREREQUISITES

Students may not be enrolled in honors, seminar, or advanced placement subjects in a school year unless they receive approval of the teacher, department chairperson, and/or meet the course prerequisites and the honors level criteria as established by the departments. Students not meeting the basic course requirements will need to complete a waiver form, which can be obtained from the Guidance Department. The waiver requires agreement/signatures from the student, parent, and principal.

### COURSE CHANGES AND WITHDRAWALS

Adjustments to student schedules must be addressed prior to the start of the academic year. Student schedules may only be changed for reliable academic reasons. Unfortunately, modifications to accommodate lunch/classes with friends or to change teachers will not be honored. Schedule changes after the first 10 days of school will not be permitted unless approved by the principal. Due to enrollment and program constraints, some sections are closed to additional students and our flexibility in changing schedules is limited.

Students may only withdraw from a course with prior approval by administration and are subject to the following stipulations:

- Withdraw from a full-year course after the 10th school day and prior to the 30th school day will result in the recording of a withdraw passing (WP) or a withdraw failing (WF) grade, whichever is applicable. The cumulative grade point average will be determined at the date of withdraw.
- Withdraw from a full-year course after the 30th school day will result in a —withdraw failing (WF).
- Students may not withdraw from a full-year course after the end of the second marking period of the course.

## GRADING

### GRADING SYSTEM AND REPORTING

Marking period and current course grades are always available on the Pottsgrove PowerSchool parent portal. These grades reflect all aspects of academic achievement including classroom participation, homework, tests, projects and quizzes. Below is the 10-point high school grading scale:

		Acad	Honors	AP
<b>A+</b>	100 - 97	4.33	4.83	5.33
<b>A</b>	96.9 - 93	4.0	4.5	5.0
<b>A-</b>	92.9 - 90	3.67	4.17	4.67
<b>B+</b>	89.9 - 87	3.33	3.83	4.33
<b>B</b>	86.9 - 83	3.00	3.5	4.0
<b>B-</b>	82.9 - 80	2.67	3.17	3.67
<b>C+</b>	79.9 - 77	2.33	2.83	3.33
<b>C</b>	76.9 - 73	2.00	2.5	3.0
<b>C-</b>	72.9 - 70	1.67	1.67	1.67
<b>D+</b>	69.9 - 67	1.33	1.33	1.33
<b>D</b>	66.9 - 65	1.00	1.00	1.00
<b>F</b>	64.9 - 0	0	0	0

\*In order to receive a grade of Medical (M) a student must provide a statement from a physician; otherwise a regular grade will be recorded. The statement must include the reason for the medical excuse, the duration and the limitations. The medical grade will be replaced by a regular grade upon satisfactory completion of course requirements. No credit will be awarded for a medical grade.

\*\*WP grades are not calculated in grade point average.

\*\*\*WF grades are calculated as zero point value towards grade point average

### HONOR ROLL

Distinguished..... A average in every course per quarter. All grades are 90%-100%

Honors..... B average in every course per quarter. All grades are 80%-100%

Honor Graduate..... A average or at least a 90% cumulative average across all four (4) years.

### WEIGHTED SUBJECTS

In order to serve as an incentive for students to choose the more demanding and rigorous planned courses of instruction, grades for the following subjects will be weighted when calculating grade point average:

.5 Increase in GPA Points: (Denoted by a single asterisk (\*) on student transcript.)

- Honors classes for English, math, science, and social studies in 9th, 10th and 11th grades
- Anatomy & Physiology\*
- Genetics, Immunology, and Marine Bio\*
- Forensic Science\*
- History of Western Civilization\*
- Honors Spanish III\*

- Decision Making in Sports\*

1.0 Increase in GPA Points: (Denoted by a double asterisk (\*\*) on student transcript.)

- All Advanced Placement (AP) subjects
- All Dual-enrollment courses
- Fourth level of world languages

## COURSE LEVELS

**ADVANCED PLACEMENT (AP) or DUAL ENROLLMENT (DE) COURSES** are developed by a committee composed of college faculty and AP/DE teachers. Each AP/DE course covers the breadth of information, skills, and assignments found in the corresponding college course. While course descriptions provide information about the course content on which the AP Exam will be based, PGHS teachers have the flexibility to determine how the content is presented.

**HONORS COURSES** are college preparatory courses that provide rigorous, in-depth study through independent interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on self-directed learning through activities and assessments that emphasize written and oral communication. Course pacing allows for additional opportunities for application and enrichment of course content.

**ACADEMIC COURSES** are college preparatory courses that provide rigorous, in-depth study through interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on teacher-supported, guided practice followed by independent demonstration of learning.

**LEARNING SUPPORT COURSES** provide content learning that prepares students for college and/or careers by providing literacy and learning strategies that support students in mastering content. The course provides a more structured learning environment, increased time spent in review, and reinforcement of major concepts to prepare for assessments and any outside assignments. Requires counselor or IEP team approval to schedule a Learning Support course.

**ONLINE COURSES** are developed to mirror the rigor, content, and skills of a traditional classroom experience. The learning is highly independent and flexible due to the limited face to face interaction with an instructor. Students that participate in online courses have increased flexibility in their course selection, scheduling of time to complete work, and overall scheduling of their school day. Parent and Principal permission is required to participate in an online course.

## PROGRAMS

### **ADVANCED PLACEMENT**

The Advanced Placement (AP) is a cooperative educational endeavor where students can complete college level studies in high school. Those who score well on the AP examinations may receive credit from colleges where they will matriculate. Students enrolled in AP courses will be awarded a 1.0 increase in GPA points for each AP course culminating in a grade of C (73%) or better.

Students who enroll in an AP Course are highly encouraged to take the AP Exam as their Final Exam. Students who are eligible for free or reduced lunch may be provided financial assistance on the AP Exam. Advanced Placement courses are denoted on the student transcript with a double asterisk (\*\*).

### **AP Capstone Program**

The AP Capstone is an innovative diploma program from the College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. AP Capstone is built on the foundation of two AP courses — AP Seminar and AP Research — and is designed to complement and enhance the in-depth, discipline-specific study experienced in other AP courses.

In AP Seminar, students investigate real-world issues from multiple perspectives, gathering and analyzing information from various sources in order to develop credible and valid evidence-based arguments. In AP Research, students cultivate the skills and discipline necessary to conduct independent research and inquiry in order to produce and defend their scholarly work.

The AP Capstone program aims to empower students by:

- engaging them with rigorous college-level curricula focused on the skills necessary for successful college completion;
- extending their abilities to synthesize information from multiple perspectives and apply skills in new situations and cross-curricular contexts;



- enabling them to collect and analyze information with accuracy and precision;
- cultivating their abilities to craft, communicate, and defend evidence-based arguments; and
- providing opportunities for them to practice disciplined and scholarly research skills while exploring relevant topics that appeal to their interests and curiosity.

AP Capstone courses can be counted as either Elective or English core credits. If AP Language and AP Literature have not been taken or the student did not earn a 3 or higher on the test or an 80% or higher in the course grade, AP Seminar and AP Research may be taken for Elective credit only. For AP Seminar or AP Research to count as an English core credit, students must have completed AP Language and AP Literature with a score of 3 or higher on each AP Exam or met the following criteria: earned an 80% or higher in each class, have gifted student identification, or received principal approval.

### Advanced Placement Awards:

Students taking at least 3 AP Courses may qualify for the following AP Scholar Awards:

- AP Scholar Award - granted to students who achieve grades of 3 or higher on at least three full-year AP Exams.
- AP Scholar with Honor Award - granted to students who achieve grades of 3 or higher on at least four full-year AP Exams, and whose average AP Exam grade is at least 3.25.
- AP Scholar with Distinction Award - granted to students who achieve grades of 3 or higher on at least five full-year AP Exams, and whose average AP Exam grade is at least 3.5.
- AP State Scholar - granted to the one male and one female student in each U.S. state and the District of Columbia who achieve grades of 3 or higher on the greatest number of full-year AP Exams, and whose average AP Exam grade is at least 3.5. The minimum requirement is three full-year AP Exams.
- AP National Scholar - granted to students in the United States who achieve grades of 3 or higher on at least eight full-year AP Exams, and whose average AP Exam grade is at least 4.0.
- AP Seminar and Research Certificate – granted to students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams. See diagram below.
- AP Capstone Diploma – granted to students who earns scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing. See diagram below.



### DUAL ENROLLMENT OVERVIEW

Participation in a dual enrollment program enables students to earn both high school and college credit at the same time. Students may select courses that will earn credits from Montgomery County Community College and/or the University of Pittsburgh.

Options include approved elective courses to be taken online, courses offered at PGHS, at the college campus, full-time early admission, and college credit for Pottsgrove courses that have been identified as such by the college. Courses that are classified as dual enrollment are noted in the course description.

Full-time dual-enrollment students and students taking more than 7 weighted dual-enrollment credits throughout the year are excluded from class rank. Dual-enrollment students will be awarded a 1.0 increase in GPA points for all dual enrollment courses culminating in a grade of C (73%) or better.

Dual-Enrollment is an excellent opportunity to earn college credit while still in high school; however, not all colleges will accept Dual-Enrollment credits so it is important that students check with their prospective college admissions office regarding acceptance of Dual-Enrollment courses.

When a student participates in a dual enrollment class it is the official beginning of their college transcript for that particular school. If a student continues at that institution these courses will likely be included in their college GPA.

The courses offered at each institution may vary based on the semester.

Students interested in the dual-enrollment program should discuss the options with their guidance counselors. Typically, early admission requires completion of a college application, Pottsgrove approval of the course and adequate performance on any required college placement tests.

Pottsgrove School District is not a direct supervisor of MCCC faculty. PGSD will communicate with MCCC and advocate for each Pottsgrove dual-enrollment student.

All financial obligations for application and enrollment will be the responsibility of the student and his/her family.

School	Cost	At PGHS	On Campus	Online
Montgomery County Community College	\$209 per course	X	X	X
University of Pittsburgh	\$75 per credit	X		

\*Costs per course are determined by the college/university and may not include other applicable fees. Costs and fees are subject to change.

**MCCC Specific Notes**

MCCC requires a minimum enrollment of 4 students to offer dual-enrollment credit for any course for any course taught at PGHS.

If necessary, van transportation can be requested by the student(s) and can be provided for Monday, Wednesday, and Friday classes at MontCo Pottstown Campus from 8:00 – 8:50 am. Students will return to PGHS by 3rd period. Students will need their own transportation for approved courses that do not occur on this schedule.

**HONORS COURSES**

Honors courses are designed to provide additional course rigor with increased independence and a higher expectation of work completed outside class. Students enrolled in honors courses will be awarded a 0.5 increase in GPA points for each honors level course culminating in a grade of C (73%) or better. These courses are denoted with a single asterisk (\*).

Prerequisites: Completion of a previous honors course in the same subject with at least an 80% (B-) final average for that course, gifted student identification, completion of an academic level course in the same subject with at least a 90% (A-) final average.

**SPECIAL EDUCATION/GIFTED EDUCATION**

Special education programs are available for students who qualify. Recommendation for entrance into a program requires thorough testing by the school psychologist. Special education classes are available based on individual learning needs.

**VIRTUAL EDUCATION – POTTS GROVE VIRTUAL ACADEMY**

The Pottsgrove School District offers a district-sponsored cyber school option to students in grades 6-12 through EdOptions. There is a process initiated through guidance in order to be considered and approved for this full day or partial program. Self-advocacy on the part of the student is a critical component to accessing these supports and for overall student success in the cyber-learning platform. These courses have been designed to augment the school's traditional curricular offerings and serve the needs of both traditional and nontraditional students.

**WESTERN MONTGOMERY CAREER & TECHNICAL CENTER**

The Western Montgomery Career & Technology Center (WMCTC), located at 77 Graterford Road, Limerick, is an extension of the existing programs of the secondary schools of Pottsgrove, Spring-Ford, and Upper Perkiomen School Districts. The career technical programs offered at WMCTC are available to students in grades 9, 10, 11, and 12. Students will attend WMCTC half day in their technical program and spend the other half day in

academic classes at Pottsgrove High School. WMCTC currently offers 19 technical programs to give students a jump-start on their careers, directly after high school or through post secondary education.

A Western Montgomery Career and Technology Center (WMCTC) education is challenging. Students progress at their own rate and level of ability. Following completion of a technical program, students are ready to step confidently into the world, believing in the dignity and worth of all work. They are committed to achieving success on the job, in college, in the military, or wherever their paths may lead. Students, upon successful completion of their technical program, can earn various industry certifications.

Many employment opportunities, both now and in the future, require technical education. Students from WMCTC can advance successfully to college with the necessary academic prerequisites. It is important to maintain a rigorous academic program at your high school to complement your technical program at WMCTC. Students in grades 9, 10, 11, and 12 should create an account and complete the student application online at [www.westerncenter.org](http://www.westerncenter.org). Online applications are open from October 1 through the middle of March for the following school year. The Guidance Department will then submit each applicant's academic and attendance records for review by WMCTC in consideration of acceptance.

WMCTC is proud to be a part of the Technology Centers That Work (TCTW) initiative in PA. The Technology Centers That Work initiative was formed in 2007 and is designed specifically to assist shared-time centers in reviewing and implementing actions needed to produce high-demand, high-wage graduates who will be leaders in their selected careers. It is based on the belief that most students can master complex academic and technical concepts if schools create an environment that encourages students to make the effort to succeed. WMCTC is a partner with your high school to provide direction and meaning to obtaining your career goal.

WMCTC is also proud to be part of Students Occupationally and Academically Ready (SOAR). SOAR is built on programs of study that incorporate secondary and postsecondary education elements to ensure relevant career and technical content. Students can earn college credits through statewide articulation agreements while they are still in high school by successfully completing our programs of study. SOAR programs prepare today's students for High Priority Occupations which include career categories that are in high demand by employers, have higher skill needs, and are most likely to provide family sustaining wages. Programs of study are programs approved by the state in meeting with Career and Technical Education (CTE) program standards. These programs provide students with career planning opportunities and college success. (Course descriptions can be found on pages 43-47.)

#### Technical Programs

Precision Machining	Computer Information Systems	Health Science Technology
Automotive Technology	Cosmetology	Heating, Ventilation & Air Conditioning
* Biomedical Science	Culinary Arts	Introduction to Medical Careers
Carpentry	Dental Occupations	Protective Services
Collision Repair	Diesel Technology	Sports Medicine
Commercial Art	Early Childhood Education	Welding & Metal Fabrication
	Electrical Occupations	

\* denotes a .5 increase in GPA points

## **COLLEGE PLANNING GUIDE**

It is recommended that you do not wait until junior or senior year to begin planning for college. Remember that colleges will initially receive your 9th, 10th and 11th grade courses and grades. Take the most challenging courses you can handle and do your best work. Below you will find guidelines for preparing for college throughout your high school career.

### **Freshman year**

- Meet with your counselor to go over a plan of action for college preparation
- Become familiar with college entrance requirements
- Join extracurricular activities
- Research college costs
- Explore your career interests
- Register on Naviance and do Career Inventory. Access Naviance through ClassLink at <https://myapps.classlink.com/home>

### **Sophomore Year**

- Continue to take challenging high school courses
- Continue to explore careers and the education required to be successful in the careers that interest you
- Take the PSAT and review the score with your School Counselor
- Begin collecting college information and sign up for college rep visits in guidance on Naviance
- Attend a summer program at a college to experience a college atmosphere
- Visit colleges and talk with college students
- Decide what kind of college you would like to attend (large vs. small, urban vs. rural, etc.)
- Continue and/or join extracurricular activities
- Begin to do community service (colleges are now EXPECTING that students are participating in some type of community service in high school)
- Log into Naviance and complete requested tasks. Access Naviance through ClassLink at <https://myapps.classlink.com/home>

### **Junior Year**

- Meet with your School Counselor for a Junior Conference
- Counselors meet with each of their juniors to go over credits, discuss senior year courses, evaluate career plans and discuss post secondary options
- KEEP YOUR GRADES UP! Junior year is an important year to the colleges considering your application
- Register for the SAT and/or ACT in the spring – take at least one test in Spring
- Visit colleges – prepare a list of questions to ask when you visit. Take notes of characteristics you like and dislike and start to narrow the list of schools to which you plan to apply.
- Put together an activities resume and/or portfolio that highlights any special skills and talents you have
- Volunteer for activities and clubs related to your career interests
- Get a part-time job, internship or job shadow in a profession that interests you
- Attend college fairs
- Do college searches on Naviance and complete requested tasks. Access Naviance through ClassLink at <https://myapps.classlink.com/home>.

### **Senior Year**

#### **September – December**

- Ask for letters of recommendation from your teachers and counselors
- Meet with your School Counselor to review your credits and make sure that your transcript is correct
- Meet with the School Counselor to discuss your college choices and review the application process
- Write your college essay
- Apply to colleges
- Request transcript through Naviance
- Confirm that teachers have sent letters of recommendation
- Look for scholarship information. The scholarship bulletin can be found in Naviance
- Apply for financial aid using the FAFSA (Free Application for Federal Student Aid) – go to [fafsa.ed.gov](https://fafsa.ed.gov) for more information

#### **January – May**

- Keep track of and observe deadlines for all required fees and paperwork
- Compare financial aid packages from your schools
- Do additional visits to help you in your final decision making
- Decide which college you plan to attend by May 1

## **COLLEGE APPLICATION PROCESS**

The school counselor is available to all students to discuss their future plans. Students thinking about entering college after graduation are encouraged to plan early. Colleges look closely at the level of coursework a student has chosen throughout high school. It is imperative for students to challenge themselves academically in order to prepare for college level work.

Resources for college and career planning are available on the District website: From the main page <https://www.pgsd.org>, click on the ClassLink icon and login with your network credentials. Parents can contact their child's counselor for access.

### **College Search**

- Students should use Naviance to help them narrow their lists by major, location, size, etc.
- Choose the schools to which they plan to apply. This list should include:
  - 1 - 2 safety schools (very likely that student will be accepted)
  - 2 realistic schools (probable that student will be accepted)
  - 1 – 2 “reach” schools (admission qualifications may be a little higher than student has demonstrated)

### **Request Recommendations**

Students are encouraged to ask teachers for college recommendation letters EARLY (they may even begin asking at the end of their junior year). Please allow teachers and others enough time to complete recommendation letters. Students must notify teachers when they have applied to their colleges and confirm that teachers have sent recommendations.

### **Apply and Request Transcripts**

Parents must complete a records release form obtained from the Guidance Office. Students will then request transcripts on Naviance. The Guidance Office requires 7 business days to process transcript requests. Be aware of any application or scholarship deadlines. Students are encouraged to apply early!

### **Athletes**

In order to participate in Division I or Division II athletics and receive athletically-based financial aid, students must register with the NCAA Initial-Eligibility Center and meet eligibility standards. If they wish to register on-line with the Eligibility Center, they must have a valid U.S. Social Security Number and a Visa or MasterCard. The Eligibility Center ensures that students are academically qualified to play by reviewing their high school transcripts and SAT/ACT scores. All test scores must be requested/sent directly through College Board. Students cannot register until they have completed their junior year. More information is available at [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

### **NCAA Division I Initial Eligibility Requirements**

To play sports at a Division I school, you must graduate high school and meet ALL the following requirements:

1. Complete 16 NCAA core courses:
  - 4 years of English
  - 3 year of math (Algebra 1 or higher)
  - 2 years of natural/physical science (including one year of lab science)
  - 2 years of social science
  - 1 additional year of English, math or natural/physical science
  - 4 additional years of English, math, natural/physical science, social science, foreign language, comparative religion or philosophy.
  - Complete 10 core courses, including seven in English, math, or natural/physical science, before the start of your seventh semester (senior year). Once you begin your seventh semester, you may not repeat or replace any of those 10 courses for GPA improvement.
2. Earn at least a 2.3 GPA in your core courses.
3. Earn an SAT combined score or ACT sum score that matches your core-course GPA on the Division I sliding scale.

### **NCAA Division II Initial Eligibility Requirements**

In order to play sports at a Division II school, you must graduate high school and meet ALL the following requirements:

- Complete 16 high school core courses.
- Earn at least a 2.200 GPA in your high school core courses.
- Earn the SAT or ACT scores that matches your core-course GPA (minimum 2.200) on the Division II competition sliding scale.

Core Courses for Division II

- To play sports at a Division II school, you must complete these NCAA core courses:
- 3 years of English
- 2 years of math (algebra I or higher)
- 2 years of natural or physical science (including one year of lab science).
- 3 additional years of English, math or natural or physical science
- 2 years of social science
- 4 additional years of English, math, natural or physical science, social science, foreign language, comparative religion or philosophy.

### **NCAA Division III Eligibility Requirements**

Division III schools provide an integrated environment focusing on academic success while offering a competitive athletics environment. While Division III schools do not offer athletics scholarships, 75 percent of division III student-athletes receive some form of merit or need-based financial aid.

If you are planning to attend a Division III school, you do not need to register with the NCAA Eligibility Center. Division III schools set their own admissions and eligibility standards. You can visit [NCAA.org/d3](http://NCAA.org/d3) or contact the Division III school you are planning to attend.

## COURSE DESCRIPTIONS

### CORE SUBJECTS

#### ENGLISH

##### COURSE LEVELS

**ADVANCED PLACEMENT (AP) or DUAL ENROLLMENT (DE) COURSES** are developed by a committee composed of college faculty and AP/DE teachers. Each AP/DE course covers the breadth of information, skills, and assignments found in the corresponding college course. While course descriptions provide information about the course content on which the AP Exam will be based, PGHS teachers have the flexibility to determine how the content is presented.

**HONORS COURSES** are college preparatory courses that provide rigorous, in-depth study through independent interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on self-directed learning through activities and assessments that emphasize written and oral communication. Course pacing allows for additional opportunities for application and enrichment of course content.

**ACADEMIC COURSES** are college preparatory courses that provide rigorous, in-depth study through interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on teacher-supported, guided practice followed by independent demonstration of learning.

**LEARNING SUPPORT COURSES** provide content learning that prepares students for college and/or careers by providing literacy and learning strategies that support students in mastering content. The course provides a more structured learning environment, increased time spent in review, and reinforcement of major concepts to prepare for assessments and any outside assignments. Requires counselor or IEP team approval to schedule a Learning Support course.

**ONLINE COURSES** are developed to mirror the rigor, content, and skills of a traditional classroom experience. The learning is highly independent and flexible due to the limited face to face interaction with an instructor. Students that participate in online courses have increased flexibility in their course selection, scheduling of time to complete work, and overall scheduling of their school day. Parent and Principal permission is required to participate in an online course.

#### ENGLISH 9

**Academic (ENG1300)**

**Honors\* (ENG1500)**

**Learning Support (ENG1901)**

English 9 addresses the topics of reading literature and informational text, writing, speaking, listening, and the use of language. The units of literature include short stories, non-fiction, novel, drama, and poetry. Through those units the course acquaints students with the works and lives of poets, dramatists, novelists, and short story writers around a central theme of Coming of Age. Core texts will include the novel *The Alchemist* by Paulo Coelho along with William Shakespeare's play *Romeo and Juliet*. Teachers will supplement these core texts with additional readings throughout the year. In an effort to sharpen their command of the English language, students will write argumentative, explanatory, and narrative pieces, as well as the study of vocabulary.

Credit: 1 credit - 6 days per cycle, full year

Open to: Freshmen

Academic Prerequisites: Language Arts 8

Honors Prerequisites: Language Arts 8 with at least a 90% final or Language Arts 8 Accelerated with at least an 80% final average, or permission of the department.

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better. SUMMER WORK IS REQUIRED FOR THE HONORS LEVEL.

#### ENGLISH 10

**Academic (ENG2300)**

**Honors\* (ENG2500)**

**Learning Support (ENG2901)**

Students will develop critical thinking, speaking, and writing skills through reading, class discussion, writing, and engagement in all areas of English studies. Students will be asked to read, write, speak, listen, and respond appropriately to the works of others and their own. Units of study include Foundations of Literature (with a focus on literary elements and literary analysis of nonfiction and fiction), Rhetoric (with a focus on rhetorical techniques, rhetorical analysis of historic speeches, and propaganda techniques and logical fallacy identification and analysis), and analysis of the core texts including Shakespeare's *Julius Caesar*, and novels *Of Mice and Men* and *To Kill a Mockingbird*. Teachers will supplement these core texts with additional readings throughout the year. Various reading material within each unit will be included, allowing students to develop skills of analysis in literary fiction and nonfiction throughout the year. In addition to literary analysis and writing, students will participate in an ongoing study of vocabulary. Sophomore students take Keystone examinations.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores

Academic Prerequisites: Academic English 9

Honors Prerequisites: Honors English 9 with at least an 80% final average or Academic English 9 with at least a 90% final average for that course, or permission of the department. SUMMER WORK IS REQUIRED FOR THE HONORS LEVEL.

## **AP ENGLISH\*\* (LANGUAGE) (ENG3700)**

This course in Advanced Placement English provides students with an opportunity to pursue college-level study in language and composition. All facets of the program prepare the student for Advanced Placement Examination in English Language administered in May. Students in this course are expected to take the AP Examination.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors

Prerequisites: Honors English 10 with at least an 80% final average or Academic English 10 with at least a 90% final average for that course, or permission of the department.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-45 minutes of work outside the classroom each day. SUMMER WORK IS REQUIRED FOR THIS COURSE.

## **ENGLISH 11**

**Academic (ENG3300)**

**Honors\* (ENG3500)**

**Learning Support (ENG3901)**

The eleventh-grade program offers a chronological survey of American literature from Puritan to contemporary writers, with emphasis upon the themes and styles of the different literary periods. The class reads a core set of texts including *The Adventures of Huckleberry Finn* by Mark Twain, *The Great Gatsby* by F. Scott Fitzgerald, and *1984* by George Orwell. Teachers will supplement these core texts with additional readings throughout the year. The course acquaints students with the works and lives of the foremost American poets, dramatists, novelists, and short story writers. The students will also read William Shakespeare's *Hamlet*. In addition, the study of grammar will focus on the use of all punctuation marks. Vocabulary and writing (literary analysis) are also major components of the course.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors

Academic Prerequisites: English 10

Honors Prerequisites: Honors English 10 with at least an 80% final average or Academic English 10 with at least a 90% final average for that course, or permission of the department.

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

Note: Course number ENG3508 is an online honors course.

## **AP ENGLISH\*\* (LITERATURE) (Dual credit course with MCCC) (ENG4700)**

This course in AP English provides seniors with an opportunity to pursue college-level study in critical, expository, and creative writing in conjunction with an intensive reading of classics from world literature. The course also emphasizes close analysis of literary modes and types. All facets of the program prepare the students for Advanced Placement Examination in English Literature and Composition administered in May of the senior year.

Credit: 1 credit - meets 50 mins, 6 days per cycle, full year

Open to: Seniors

Prerequisites: Honors English 11 or AP English Language with at least an 80% final average, Academic English 11 with at least a 90% final average for that course and recommendation of the department.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-45 minutes of work outside the classroom each day. SUMMER WORK IS REQUIRED FOR THIS COURSE.

## **ENGLISH 12**

**Academic (ENG4300)**

**Online (ENG4308)**

The senior English program provides a chronological survey of English literature from the Anglo-Saxon period to the twentieth century. Novels include various titles read both collectively and individually. The research process is taught and all students are required to produce a literature-based research paper. Other writing assignments emphasize stylistic experimentation and sharpen analytical skills.

Credit: 1 credit - 6 days per cycle, full year

Open to: Seniors

Prerequisites: Honors English 11 or Academic English 11

## **ENGLISH 12 –TECHNICAL WRITING (ENG4100)**

This senior English course is designed for the student who needs to sharpen and reinforce his/her English skills. Writing techniques, skills, and their application to career and life experiences will be stressed. Content includes English literature, selected contemporary novels, job preparation skills, and applied communication work. All students will complete a research paper that focuses on a career of their choice. This is a non-college preparatory course.

Credit: 1 credit - 6 days per cycle, full year

Open to: Seniors

Prerequisites: Teacher/English Dept. recommendation

## **WOMEN IN LITERATURE**

**Honors (ENG3570)**

**Academic (ENG3370)**

This elective course is for students who want to read and examine literature that focuses on the experiences of women and girls. The course will focus on novels, short stories, poetry, and nonfiction writings that express female voices from various cultures, historical periods, and social backgrounds. There will be a focus on literary analysis incorporating historical, social, and cultural context.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Teacher recommendation

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.



## **PUBLIC SPEAKING (ENG3360)**

In this introductory speech course, students are exposed to a wide variety of speaking situations. Types of speeches include informational, persuasive, demonstration, impromptu, sales, oral interpretation, symposium, and valedictory. Since public speaking is the number one fear of most Americans, the class provides a supportive and low-key atmosphere to help students overcome their anxiety. Some memorable preparation activities include mock trials and survival simulations.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: English 10

## **JOURNALISM (ENG2360)**

From the daily newspaper to the nightly news broadcast, journalism is all around us and rapidly evolving to include many new media outlets. Students involved in this course will be provided with a foundation in the journalism principles that span across all types of media while developing their skills and perspective as a journalist. While in this course students will be involved in all areas of the planning, reporting, and publishing of journalistic content across a variety of media types including a digital newspaper, podcast series, segments for the Falcon Video News, and other social media outlets.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomore, Juniors and Seniors

Prerequisites: None

## **ADVANCED JOURNALISM (ENG2460)**

This course offers deeper instruction in online newspaper planning, development, production, and marketing. Key components of the course include mastering journalistic instruction and leadership in writing copy and editing; more frequent use of and management of technology in publication submission systems; and marketing experience and leadership in soliciting subscribers, mastering the creation and management of social media campaigns, and developing and monitoring customer satisfaction and feedback.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors and Seniors

Prerequisites: Successful completion of Journalism

## **POTTSGROVIAN (ENG2380)**

Students in grades 10, 11, and 12 who want to express themselves in pictorial and written journalism will be considered for this offering. This selected class comprises the yearbook staff and publishes the school's annual Pottsgrovian. All applicants must receive a recommendation from his/her English teacher

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: None

## **READING APPRENTICESHIP (GEN1010)**

This class focuses on developing students' academic literacy while building their knowledge, collaborative skills, persistence, and confidence. In addition, this class will support the literature read in English classes and work to strengthen the reading skills of students in an encouraging, equipping, and empowering classroom community.

Credit: 1/2 credit - meets 50 mins, 3 days per cycle, full year

Open to: All grade levels

Prerequisites: Teacher recommendation

## **DRAMA (ENG3390)**

This course combines the study of drama as literature with the application of various theatrical techniques. Students will learn and experience the history of drama from its roots in Ancient Greece to the absurdist and musical theater of today. Students will also interpret drama through improvisation, mime, voice and diction, and acting. This elective is designed for students with a sincere interest in performance.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: English 10

## **AP SEMINAR\*\* (ENG2700)**

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

Credit: 1 credit – 6 days per cycle, full year

Open to: Sophomore, Juniors and Seniors

Prerequisites for Elective Credit - No Prerequisite (See GEN2700)

Prerequisites for English Core Credit - Students must have completed AP Language and AP Literature with a score of 3 or higher on the AP Exam in each course, or earned an 80% or higher in each course, or received principal approval.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better.

## **AP RESEARCH\*\* (ENG2710)**

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a

yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense.

Credit: 1 credit – 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Successful completion of AP Seminar

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better.

# MATHEMATICS

## COURSE LEVELS

**ADVANCED PLACEMENT (AP) or DUAL ENROLLMENT (DE) COURSES** are developed by a committee composed of college faculty and AP/DE teachers. Each AP/DE course covers the breadth of information, skills, and assignments found in the corresponding college course. While course descriptions provide information about the course content on which the AP Exam will be based, PGHS teachers have the flexibility to determine how the content is presented.

**HONORS COURSES** are college preparatory courses that provide rigorous, in-depth study through independent interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on self-directed learning through activities and assessments that emphasize written and oral communication. Course pacing allows for additional opportunities for application and enrichment of course content.

**ACADEMIC COURSES** are college preparatory courses that provide rigorous, in-depth study through interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on teacher-supported, guided practice followed by independent demonstration of learning.

**LEARNING SUPPORT COURSES** provide content learning that prepares students for college and/or careers by providing literacy and learning strategies that support students in mastering content. The course provides a more structured learning environment, increased time spent in review, and reinforcement of major concepts to prepare for assessments and any outside assignments. Requires counselor or IEP team approval to schedule a Learning Support course.

**ONLINE COURSES** are developed to mirror the rigor, content, and skills of a traditional classroom experience. The learning is highly independent and flexible due to the limited face to face interaction with an instructor. Students that participate in online courses have increased flexibility in their course selection, scheduling of time to complete work, and overall scheduling of their school day. Parent and Principal permission is required to participate in an online course.

### ALGEBRA I

**Honors (MTH1520)**

**Academic (MTH1320)**

**Learning Support A (MTH1910)\*\***

**Learning Support B (MTH2910)\*\***

In this rigorous introductory Algebra I course, students will learn algebraic principles and applying them to the world around them. Students will be prepared for success on Keystone Exams. Students who attain great success may advance to Honors Geometry (MTH2500). Most students will be advised to continue their algebra and geometry learning with Academic Geometry (MTH2300) and Academic Algebra II (MTH2310).

\*\*LS level is a 2 year commitment (A and B). Participation in this LS course is by teacher recommendation only. Taking these courses will have an impact on a student's NCAA Clearinghouse Eligibility. See your counselor if there are questions. Students will take the Algebra Keystone exam at the end of the B course.

Credit: 1 credits - 6 days per cycle, full year

Acad Prerequisite: CC Math 8

Honors Prerequisite: At least a 90% in Math 8 or recommendation of an 8th grade math teacher.

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### GEOMETRY

**Academic (MTH2300)**

**Honors\* (MTH2500)**

**Learning Support (MTH4910)**

This course is designed to emphasize the study of the properties and applications of common geometric figures in two and three dimensions. It includes the study of transformations and right triangle trigonometry. Inductive and deductive thinking skills are used in problem solving situations, and applications to the real world are stressed. Other topics include logic and proof, parallel lines and polygons, perimeter and area analysis, volume and surface area analysis, similarity and congruence, trigonometry, and analytic geometry. The Mathematical Practice Standards apply throughout this course.

Credit: 1 credit - 6 days per cycle, full year

Academic Prerequisites: At least a 65% final average in Academic Algebra I (MTH1300) or a 70% final average in 8th Grade Algebra I.

Honors Prerequisites: At least a 90% in Academic Algebra I (MTH1300) or a 90% final average in 8th Grade Algebra I and recommendation of 8th grade math teacher

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### ALGEBRA II

**Academic (MTH2310)**

**Honors\* (MTH2510)**

Throughout this course, students will be working on preparation for state and national tests as well as preparation for the courses that follow Algebra II in both high school and college. Building on their work with linear, quadratic, and exponential functions, students extend their knowledge of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential

equations using the properties of logarithms. The Mathematical Practice Standards apply throughout this course.

Credit: 1 credit - 6 days per cycle, full year

Academic Prerequisites: At least a 65% final average in Academic Geometry (MTH2300)

Honors Prerequisites: At least an 80% final average in Honors Geometry (MTH2500) or a 90% final average in Academic Geometry (MTH2300).

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### **PROBABILITY AND STATISTICS (MTH4330)**

This course is designed for students who have successfully completed Algebra II and wish to extend their knowledge of how mathematics is used in the real world. Topics covered include collecting and analyzing data, basic concepts of probability, normal and discrete distributions, surveying and sampling techniques, and an introduction to statistical inference. Students planning to major in business or social sciences are encouraged to take this course. It may be taken alone or in conjunction with another math course. This is a college-preparatory course.

Credit: 1 credit - 6 days per cycle, full year

Prerequisites: At least a 65% final average in Academic Algebra II (MTH2310)

### **TRIGONOMETRY**

**Academic (MTH3320)**

**Honors\* (MTH3520)**

Trigonometry is intended as preparation for students who intend to take calculus. It is a rigorous and advanced course in mathematics. The scope of the course includes an extension of Algebra 2 concepts, trigonometry basics and pre-calculus topics. The study includes functions, linear equations and systems, higher order polynomials, rational and radical equations. Also included is the study of complex numbers and matrices. Definitions of the trigonometry ratios, triangle solutions, laws of sines and cosines, trigonometric graphs and identities are explored and applied. Finally, conic sections, polar coordinates, logarithmic and exponential equations as well as topics including sequences and series are examined. The Mathematical Practice Standards apply throughout this course.

Credit: 1 credit - 6 days per cycle, full year

Academic Prerequisites: At least a 70% in Academic Algebra II (MTH2310) or a 90% final average in Algebra II (MTH3110)

Honors Prerequisites: At least a 80% final average in Honors Algebra II (MTH2510) or a 90% in Academic Algebra II (MTH2310)

\*Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### **AP STATISTICS\*\* (MTH3730)**

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: Exploring Data: describing patterns and departures from patterns; Sampling and Experimentation: planning and conducting a study; Anticipating Patterns: exploring random phenomena using probability and simulation; Statistical Inference: Estimating population parameters and testing hypotheses. Students who successfully complete the course and AP examination may receive credit and/or advanced placement for a one-semester introductory college statistics course.

Credit: 1 credit - 6 days per cycle, full year

Open to: Intended for Juniors concurrently with a Trigonometry course or Seniors after Trigonometry. Sophomores should be sure to take Honors Trigonometry if taken concurrently with AP Statistics

Prerequisite: At least a 90% in Academic Algebra II (MTH2310) or 80% final average in Honors Algebra II (MTH2510)

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-60 minutes of work outside the classroom each day.

### **AP CALCULUS AB\*\* (MTH3710)**

Topics studied include elementary functions, limits, differential calculus and integral calculus. Students are prepared for and expected to take the AP Calculus examination that is administered in May.

Credit: 1 credit - 6 days per cycle, full year

Prerequisites: At least an 80% final average in Honors Trigonometry & Pre-Calculus (MTH3520) or a 90% average in Academic Trigonometry & Pre-Calculus (MTH3320)

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-45 minutes of work outside the classroom each day. SUMMER WORK IS REQUIRED FOR THIS COURSE..

### **AP CALCULUS BC\*\* (MTH4710)**

AP Calculus BC is a course in single-variable calculus that includes all the topics of AP Calculus AB (techniques and applications of the derivative, techniques and applications of the definite integral, and the Fundamental Theorem of Calculus) plus additional topics in differential and integral calculus (including parametric, polar, and vector functions) and series. It is equivalent to at least a year of calculus at most colleges and universities. Algebraic, numerical, and graphical representations are emphasized throughout the course. Students are prepared for and expected to take the AP Calculus examination that is administered in May.

Credit: 1 credit - 6 days per cycle, full year

Prerequisites: At least an 80% final average in Differential Calculus (MTH4340) or successful completion of AP Calculus AB

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **CALCULUS III\*\* (MTH4720)**

Calculus III is the culmination of the calculus sequence and is intended for students that have completed Calculus BC. This course will ask students to begin to move into multi-dimensional analysis. The course topics include vectors in the plane and space, three-dimensional surfaces, various coordinate systems, vector-valued functions, differential calculus of functions of several variables, gradients, directional derivatives, applications of partial derivatives, multiple integration, vector analysis, line integrals, and surface integrals with applications.

Credit: 1 credit - 6 days per cycle, full year

Prerequisites: Successful completion of AP Calculus BC.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-45 minutes of work outside the classroom each day.

### **DIFFERENTIAL CALCULUS (MTH4340)**

Topics from advanced algebra, analytic geometry, and calculus are studied. These topics include distance between points and from a point to a line; conic sections (circle, ellipse, parabola, and hyperbola); mathematical induction; polynomial function; rational functions; limits; and derivatives with applications to graphing, maxima and minima problems, and related rates and integral calculus.

Credit: 1 credit - 6 days per cycle, full year

Prerequisites: At least a 70% final average in Academic Trigonometry & Pre-Calculus (MTH3320) or a 65% final average in Honors Trigonometry & Pre-Calculus (MTH3520)

### **MATHEMATICS FOR FINANCIAL LITERACY**

**Academic (MTH3370)**

**Learning Support (MTH4970)**

This math course gives students a greater financial knowledge to better manage their money and improve their quality of life. Students

study and review arithmetic skills they can apply in their personal lives and in their future careers. The first semester of the course begins with a focus on jobs, wages, deductions, taxes, insurance, recreation and spending, and transportation. In the second semester, students learn about personal finances, checking and savings accounts, loans and buying on credit, automobile expenses, and housing expenses. Throughout the course, students participate in discussions with each other and their teacher. Technology will be used extensively throughout the course.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Counselor Approval

Other: This course DOES NOT meet the NCAA Initial Eligibility Requirements

### **DECISION MAKING IN SPORTS\* (MTH5000)**

Students will be introduced to concepts related to data collection, data quality, data analysis and modeling, as well as data visualization, through the context of sports analytics. Data and analytics have been part of the sports industry dating to the 1870s, when the first boxscore in baseball was recorded. Recently, advanced data mining and machine learning techniques have been incorporated into the operations of sports franchises. In this course, students will become familiar with data science concepts and data analysis techniques, the interpretation and use of probabilities, the notion of overfitting and how to avoid it, and the components of a useful visualization.

Credit: 1 credit - 6 days per cycle, full year

Open to: All students

Prerequisites: Successful completion of Algebra II or Trigonometry.

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better. This course is an elective and does not count toward graduation requirements in the Math Department. This course DOES NOT meet the NCAA Initial Eligibility Requirements

## Typical Math Sequences in Grades 7-12

Although three math courses must be taken during grades 9-12 to meet state graduation requirements, it is recommended that students take a math class each year. The advice of the student's current math teacher should be sought before selecting the next math course.

7	8	9	10	11	12	Electives	
CC Math 7 Accelerated	8 <sup>th</sup> Grade Algebra I	Honors Algebra II* (MTH2510) and Honors Geometry* (MTH2500)	Honors Trig* (MTH3520)	AP Calc AB** (MTH3710)	AP Stats** (MTH3730)	Prob & Stat (MTH4330)	
		Honors Geometry* (MTH2500)	Honors Algebra II* (MTH2510)	Honors Trig* (MTH3520)	Calculus (MTH4340) and AP Stats** (MTH3730)	AP Calc BC** (MTH4710)	AP Stats (MTH3730)
					AP Stats** (MTH3730)	AP Calc AB** (MTH3710) or Calculus (MTH4340)	AP Calc AB** (MTH3710)
Academic Geometry (MTH2300)	Academic Algebra II (MTH2310)	Academic Trig (MTH3320)	Calculus (MTH4340)	AP Stats** (MTH3730) or Prob & Stat (MTH4330)	AP Calc BC** (MTH4710)		
CC Math 7	CC Math 8	Academic Algebra I (MTH1320)	Honors Geometry* (MTH2500)	Honors Algebra II* (MTH2510)	Honors Trig* (MTH3520)	Calculus III** (MTH4720)	
			Academic Geometry (MTH2300)	Academic Algebra II (MTH2310)	Academic Trig (MTH3320)	AP Stats** (MTH3730) or Prob & Stat (MTH4330)	Intro to Computer Science (CIS1300)
						Computer Programming (CIS2300)	
						AP Comp Sci Principles** (CIS2700)	
						AP Computer Science A** (CIS3700)	
						Math for Financial Literacy (MTH3370)	
						Decision Making in Sports* (MTH5000)	

## SCIENCE

### COURSE LEVELS

**ADVANCED PLACEMENT (AP) or DUAL ENROLLMENT (DE) COURSES** are developed by a committee composed of college faculty and AP/DE teachers. Each AP/DE course covers the breadth of information, skills, and assignments found in the corresponding college course. While course descriptions provide information about the course content on which the AP Exam will be based, PGHS teachers have the flexibility to determine how the content is presented.

**HONORS COURSES** are college preparatory courses that provide rigorous, in-depth study through independent interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on self-directed learning through activities and assessments that emphasize written and oral communication. Course pacing allows for additional opportunities for application and enrichment of course content.

**ACADEMIC COURSES** are college preparatory courses that provide rigorous, in-depth study through interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on teacher-supported, guided practice followed by independent demonstration of learning.

**LEARNING SUPPORT COURSES** provide content learning that prepares students for college and/or careers by providing literacy and learning strategies that support students in mastering content. The course provides a more structured learning environment, increased time spent in review, and reinforcement of major concepts to prepare for assessments and any outside assignments. Requires counselor or IEP team approval to schedule a Learning Support course.

**ONLINE COURSES** are developed to mirror the rigor, content, and skills of a traditional classroom experience. The learning is highly independent and flexible due to the limited face to face interaction with an instructor. Students that participate in online courses have increased flexibility in their course selection, scheduling of time to complete work, and overall scheduling of their school day. Parent and Principal permission is required to participate in an online course.

### EARTH & SPACE SCIENCE

**Academic (SCI1300)**

**Honors\* (SCI1500)**

Earth & Space Science investigates humans' environment on Earth and in space. Emphasis is placed upon class discussion and is interspersed with laboratory studies and outside activities. Students are encouraged to develop a general understanding of the interrelationships of geology, astronomy, and meteorology and apply these concepts to present environmental situations and phenomena which they encounter daily. Students are required to keep an Evidence Notebook in a bound composition book.

Credit: 1 credit - 6 days per cycle, full year

Open to: Freshmen

Academic Prerequisites: None

Honors Prerequisites: Gifted student identification, or at least a 90% final average in 8th grade science or permission of the department.

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### BIOLOGY

**Academic (SCI2300)**

**Honors\* (SCI2500)**

This course is a study of the major themes of biology - Scientific Investigation, Biochemistry, Membrane Transport, Photosynthesis and Respiration, Cell Cycle, DNA Inheritance, Genetics, Evolution and Ecology. To investigate these concepts students will perform hands-on lab activities, online explorations, writing assignments and projects. Honors Biology will have an additional lab period to perform more in depth lab investigations.

Credit: 1 credits, 6 days per cycle, full year

Open to: Freshmen and Sophomores

Academic Prerequisites: Completion of Academic Earth & Space Science or teacher recommendation.

Honors Prerequisites: Gifted student identification, Academic Earth and Space with at least a 90% final average, or permission of the department; or at least a 90% final average in 8th grade science.

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### APPLIED SCIENCE – LIVING THINGS (SCI3160)

This course includes a survey of the six kingdoms of living things and classification systems. Students will compare and contrast the anatomy, physiology, habitats and means of energy acquisition of representatives of the six kingdoms as well as their evolutionary history.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Academic Biology

### CHEMISTRY

**Academic (SCI3300)**

**Honors\* (SCI3500)**

Honors or Academic Chemistry are preparatory courses for students going onto post-secondary education and considering a major in the sciences. Students will be expected to have strong mathematical and algebra skills. Subjects covered include scientific measurement,

atomic structure, periodic trends, chemical reactions and formulas, ionic and covalent bonding, stoichiometry, states of matter, reduction-oxidation, gas law and solutions. These classes have an additional lab period where students will be expected to conduct experiments with chemicals and formulate conclusions from resulting data. Students planning on taking AP Chemistry are strongly encouraged to take Honors Chemistry.

Credit: 1.17 credits, 6 days (7 periods) per cycle, full year

Open to: Sophomores, Juniors, Seniors

Academic Prerequisites: Academic Biology with at least a 80% final average or Honors Biology with at least an 70% final average; completion of Algebra I, Algebra II, Geometry; and departmental approval.

Honors Prerequisites: Honors Biology with at least a 80% final average or Academic Biology with at least an 90% final average; completion of Algebra I, (Geometry and Algebra II which may be taken concurrently with this course).

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### **CHEMISTRY (SCI3100)**

Chemistry is a preparatory course for students going onto post-secondary education, but not focusing on the sciences. Basic mathematical and algebra skills will be utilized. Subjects covered include scientific measurement, atomic structure, periodic trends, chemical reactions and formulas, ionic and covalent bonding, and stoichiometry. Though this course has no additional lab period, labs will be conducted when possible.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Academic Biology with at least a 65% final average, Algebra and Geometry (Geometry may be taken concurrently with Chemistry).

### **AP PHYSICS C "MECHANICS"\*\*\* (SCI3720)**

This course is intended for students who want to study science, engineering, or mathematics in college. Physical phenomena such as motion, force, energy, momentum, circular motion, rotation, oscillation, and gravitation will be presented theoretically using calculus technique and observed experimentally in laboratory. Students and teacher will work as a team to prepare for the AP Physics C "Mechanics" exam in the spring while enjoying demonstrations, laboratories, discussions, projects, and problem solving.

Credit: 1 credits, 6 days per cycle, full year

Open to: students who have met the prerequisites

Prerequisites: Completion of or concurrent enrollment in AP Calculus.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect approximately 60 minutes of work outside the classroom each day. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **AP PHYSICS 1\*\* (SCI3710)**

The AP Physics 1 course is designed to enable you to develop the ability to reason about physical phenomena using important science process skills such as explaining causal relationships, applying and justifying the use of mathematical routines, designing experiments, analyzing data and making connections across multiple topics within the course. Topics covered include Newtonian mechanics, work and energy, waves and sound, and simple circuits.

This AP Physics 1 course is equivalent to the first semester of a typical introductory, algebra-based physics course.

Credit: 1 credit, 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: Honors Algebra II with at least an 80% final average or Academic Algebra II with at least a 90% final average.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-60 minutes of work outside the classroom each day. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **ACADEMIC PHYSICS (SCI3110)**

This course provides a hands-on laboratory based survey of physical phenomena. Included units of study are motion, forces, energy, momentum, waves, electricity, and light. Mathematics will be used as a tool for modeling observed relationships. Students will be expected to complete one project per semester.

Credit: 1 credit, 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: None

### **GENETICS, IMMUNOLOGY & MARINE BIO\* (SCI2530)**

This course is divided into three units of study. Students will study disease transmission and how we fight disease with our natural defenses and with medicine in Immunology. Followed by a brief review of Genetics and an in-depth examination of gene expression, modern genetic technologies and relevant social issues in genetics. The third unit, Marine Biology, will include a field trip to Wallops Island, VA. This course is highly recommended for students considering careers or college level work in biology.

Credit: 1 credit, 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: At least a 80% final average in Honors Biology or an 90% final average in Academic Biology

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### **AP BIOLOGY\*\* (SCI3730)**

This course is designed to be equivalent to an introductory biology college course in text, effort and labs performed. This course will prep students to take the AP Biology exam by providing students with conceptual framework, factual knowledge and analytical skills necessary to deal critically with the rapidly changing science of



biology. A summer reading assignment is required for this course. These skills will help create a deeper understanding of fundamental molecular and cellular biology, genetics, evolution, and ecology.

Credit: 1.17 credits, 6 days (7 periods) per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Honors Biology with at least an 80% final average, Academic Biology with at least a 90% final average, or permission of the department.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30 minutes of work outside the classroom each day. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **ANATOMY AND PHYSIOLOGY\***

**Honors\* (SCI3540)**

**Online (SCI3548)**

This course is dedicated to the study of human anatomy and physiology. Most body systems are studied. Instruction is supplemented by laboratory exercises at both the microscopic and macroscopic levels. The student will dissect a fetal pig. Lecture material supplements the laboratory studies. This course is highly recommended for those students who are interested in the areas of biology, nursing, medicine and other paramedical professions. Course SCI3548 is the online course. This course is self-paced and labs are online only.

Credit: 1 credit, 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: At least a 70% final average in Academic Biology

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

Note: Course number SCI3548 is an online course.

### **AP CHEMISTRY\*\* (SCI4700)**

This second year chemistry course is designed primarily for students intending to pursue college-level work in the science, engineering or medical fields. As an AP course it is designed to be the equivalent of a college level general chemistry course with emphasis on physical, qualitative, quantitative and organic areas; it will have correlated collegiate level laboratory experimentation. Students in this course are expected to take the AP Examination.

Credit: 1.17 credits, 6 days (7 periods) per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Honors Chemistry with at least an 80% final average, Academic Chemistry with at least a 90% final average, or permission of the department.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **AP ENVIRONMENTAL SCIENCE\*\* (SCI3760)**

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. Students in this course are expected to take the AP Examination.

Credit: 1 credit, 6 days per cycle, full year

Open to: Sophomores, Juniors and Seniors

Prerequisites: Honors Biology with at least an 80% final average, Academic Biology with at least a 90% final average, or permission of the department.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **FORENSIC SCIENCE\* (SCI2730)**

This course is intended for the science-oriented college bound student. It focuses on the collection, identification and analysis of forensic evidence. A large part of the course will include laboratory techniques and inquiry based learning as well as formal and informal problem solving, demonstrations, collaboration, computers, and projects.

Credit: 1 credit, 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Completion of Honors Biology with at least an 80%, Academic Biology with at least a 90% and preferably Chemistry (Chemistry can be taken concurrently)

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

## **SOCIAL STUDIES**

### **COURSE LEVEL**

**ADVANCED PLACEMENT (AP) or DUAL ENROLLMENT (DE) COURSES** are developed by a committee composed of college faculty and AP/DE teachers. Each AP/DE course covers the breadth of information, skills, and assignments found in the corresponding college course. While course descriptions provide information about the course content on which the AP Exam will be based, PGHS teachers have the flexibility to determine how the content is presented.

**HONORS COURSES** are college preparatory courses that provide rigorous, in-depth study through independent interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on self-directed learning through activities and assessments that emphasize written and oral communication. Course pacing allows for additional opportunities for application and enrichment of course content.

**ACADEMIC COURSES** are college preparatory courses that provide rigorous, in-depth study through interpretation, application, analysis and synthesis of course concepts, content and standards. Both in-class instruction and outside assignments focus on teacher-supported, guided practice followed by independent demonstration of learning.

**LEARNING SUPPORT COURSES** provide content learning that prepares students for college and/or careers by providing literacy and learning strategies that support students in mastering content. The course provides a more structured learning environment, increased time spent in review, and reinforcement of major concepts to prepare for assessments and any outside assignments. Requires counselor or IEP team approval to schedule a Learning Support course.

**ONLINE COURSES** are developed to mirror the rigor, content, and skills of a traditional classroom experience. The learning is highly independent and flexible due to the limited face to face interaction with an instructor. Students that participate in online courses have increased flexibility in their course selection, scheduling of time to complete work, and overall scheduling of their school day. Parent and Principal permission is required to participate in an online course.

### **CIVICS**

#### **Academic (SST1300) Honors\* (SST1500)**

This course thoroughly examines American political and economic systems while emphasizing current political and economic developments in the United States. Specific units of study include American foundations of citizenship, American government, American economic systems, and politics.

Credit: 1 credit - 6 days per cycle, full year

Open to: Recommended for Freshmen. This course is a state requirement for graduation.

Academic Prerequisites: None

Honors Prerequisites: Social Studies 8 with at least a 90% final average, or permission of the department.

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better

### **WORLD HISTORY**

#### **Academic (SST2300) Honors\* (SST2500)**

This is a survey of Western and non-Western history from the age of revolutions to the present. Topics include the Industrial Revolution, Nationalism, Imperialism, World War I, Inter-War Years, World War II, the Cold War, post Cold-War Era, and interdependence of the modern world. Students will engage in class discussion, analyze a variety of sources, including primary and secondary sources, and connect historical developments to current world events.

Credit: 1 credit - 6 days per cycle, full year

Open to: Recommended for Sophomores

Academic Prerequisites: Honors or Academic Civics

Honors Prerequisites: Honors Civics 9 with at least an 80% final average for that course, or Academic Civics 9 with at least a 90% final average, or permission of the department.

### **AMERICAN HISTORY**

#### **Academic (SST3300) Honors\* (SST3500)**

This course is a review of exploration, settlement, and formation of American History spanning historical subjects from the American Civil War to present day happenings. Domestic developments are highlighted by agrarian, political, societal, and industrial revolutions that have occurred throughout history. Current events are discussed on a regular basis in order to keep the student abreast of additional items of historical and social significance.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores (attending Western Center) and Juniors. This course is a state requirement for graduation.

Academic Prerequisites: Academic World History 10 or Honors World History 10

Honors Prerequisites: Honors World History 10 with at least an 80% final average for that course, Academic World History with at least a 90% final average, or permission of the department.

Other: Honors students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

Note: Course number SST3508 is an online course.

### **AP GOVERNMENT & POLITICS\*\* (SST2730)**

This course is a college level introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the

United States. Students will read and analyze U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions between political institutions and behavior. They will read and interpret data, develop evidence-based arguments, and engage in an applied civics or politics research-based project.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A minimum average of 90% in an honors or AP history course, or a specific recommendation from their current history teacher.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-45 minutes of work outside the classroom each day.

### **AP EUROPEAN HISTORY\*\* (SST3700)**

In AP European History, students investigate significant events, individuals, developments, and processes from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations. AP European History is designed to be the equivalent of an introductory college or university survey of modern European history. This class is designed to prepare the students for the AP European History Exam. Emphasis will be placed on building skills necessary for success on this test.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A minimum average of 90% in an honors or AP history course, or a specific recommendation from their current history teacher.

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-45 minutes of work outside the classroom each day.

### **AP HUMAN GEOGRAPHY\*\* (SST3740)**

This human geography course will introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. The methods and tools that geographers use in their research and applications will be analyzed throughout the course as well.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A minimum average of 90% in an honors or AP history course, or a specific recommendation from their current history teacher.

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30 minutes of work outside the classroom each day.

### **AP U.S. HISTORY\*\* (SST4700)**

This course focuses on developing students' understanding of American history from approximately 1491 to the present. The course has students investigate the content of U.S. history for significant events, individuals, developments, and processes in the nine historical periods, and develop and use the same thinking skills and methods (analysis of primary and secondary sources, making historical comparison, use of chronological reasoning, and argumentation) that are employed by historians when they study the past. The course also provides seven themes (American and national identity: migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society) that students explore throughout the course in order to make connections among historical developments in different times and places. Special attention will be paid to the forty-five presidential administrations, as well as continuity and change within our country.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A minimum average of 90% in an honors or AP history course, or a specific recommendation from their current history teacher.

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-45 minutes of work outside the classroom each day.

### **GENERAL PSYCHOLOGY (SST2310)**

This course promises to be a journey of the inner workings of your mind and an exploration of the individual. The scope of psychology is extraordinarily broad, dealing with the study of behavior and mental processes in both humans and animals. Ranging from the physiological activity of neurons and hormones, to the maze-running abilities of lab rats, to the effects of emotions on how we think and act towards others, to the influence of social contexts and cultures on our own behaviors. This course will provide students with a broad introduction to the vast and exciting field of psychology.

Credit: 1 credit - 6 days per cycle

Open to: All grades

Prerequisites: None

### **AP PSYCHOLOGY\*\* (SST2710)**

This AP course will prepare you for future AP courses and college classes. You will gain a better understanding of yourself as a learner

and a human being. AP Psychology is designed to introduce students to the scientific study of the behavior and mental processes of human beings. To accomplish this, the course provides instruction in each of the following 14 content areas: History and Approaches, Research Methods, Biological Bases of Behavior, Sensation and Perception, States of Consciousness, Learning, Cognition, Motivation and Emotion, Developmental Psychology, Personality, Testing and Individual Differences, Abnormal Psychology, Treatment of Psychological Disorders, and Social Psychology.

In an effort to make budding psychologists out of you, the course will stress the need to think like a psychologist. As author and social psychologist, David Myers, notes, to think like a psychologist one must “restrain intuition with critical thinking, being judgmental with compassion, and illusion with understanding” (Sternberg, 1997). Whether you choose to pursue a career in psychology or in some entirely different field, this habit of mind will be of great value.

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grades

Prerequisites: A minimum average of 90% in an honors or AP history course, or a specific recommendation from their current history teacher.

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30 minutes of work outside the classroom each day.

#### **HISTORY OF WESTERN CIVILIZATION\* (SST3510) (Dual credit course with MCCC)**

History of Western Civilization. This course is a survey of the origins of Western Civilization starting with prehistoric man and the emergence of agriculture. The course continues with the study of the ancient Near Eastern civilizations, Greece and Rome, the Middle Ages and Europe up through the Renaissance and Reformation. The second half of the course then covers the period from the middle of the seventeenth century to the twenty-first century, starting with the Scientific Revolution, Enlightenment Era and the French Revolution. The course concludes with a study of the causes and consequences of the World Wars, the Cold War, and the post-Cold War era. Students who choose to pursue the dual enrollment opportunity may do so by paying a discounted rate to Montgomery County Community College for a total of 6 college credits on the PGHS campus. The course serves as the equivalent of HIS 101 and HIS 102.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: 80% final average in any Honors or AP level history course, or at least a 90% final average in any Academic level history course

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better.

#### **MODERN WORLD CONFLICT (SST3340)**

Modern World Conflict provides students with the opportunity to explore current global conflict, the historical roots of that conflict, and the role that the United States government plays in the existence and resolution of the conflict. The course will encourage and challenge students to think globally and to consider multiple points of view.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: None

#### **ECONOMICS & SOCIOLOGY (SST4340)**

Sociology is the study of people as they behave in groups. Students will explore the various social phenomena that people exhibit. They will focus on different stages of life, culture, deviance, crime, race, gender, health, and the family - to name a few. Economics is the study of how people seek to satisfy their needs and wants by making choices. Students will examine the management of income and expenditures of households, businesses, communities, and governments. They will also examine the production, distribution, and consumption of wealth in our country and around the world.

Credit: 1 credit - 6 days per cycle, full year

Open to: Seniors only (except for select Votech Juniors with special administrative permission prior to selecting / starting the course)

Prerequisites: American History

#### **AP ECONOMICS\*\* (SST4740)**

Advanced Placement Economics provides a college-level understanding of the principles of economics that apply to an economy in both Macroeconomic and Microeconomic spheres. The Macroeconomics portion places particular emphasis on the study of national income and price determination, in addition to developing students' familiarity with economic performance measures, economic growth, and international economics. The Microeconomics portion provides students a thorough understanding of the economic principles that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. It places primary emphasis on the nature and functions of product markets, but includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. The program prepares students for introductory college courses in both Macroeconomics and Microeconomics.

Credit: 1 credit - 6 days per cycle, full year

Open to: Grades 11-12

Prerequisites: 90% final average in any Honors or AP level history course.

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30-60 minutes of work outside the classroom each day.

**RECOMMENDED SOCIAL STUDIES PROGRESSION – 4 CREDITS REQUIRED TO GRADUATE**

All students must successfully complete the appropriate level of Civics or AP Govt & Politics and American History in order to graduate.

GRADE	9	10	11	12	
All prerequisites apply as outlined in the Program of Studies	Academic Civics Honors Civics* AP Psychology	Academic World History Honors World History* Dual Enrollment Western Civ* AP European History** AP Govt & Politics** AP Psychology** AP Human Geography**	Academic American History Honors American History* AP US History** Dual Enrollment Western Civ* AP Economics** AP European History** AP Govt & Politics** AP Psychology** AP Human Geography** General Psychology	Economics/Sociology AP Economics** AP Govt & Politics** AP Psychology** AP US History** AP European History** AP Human Geography** Dual Enrollment Western Civ* General Psychology	
	<b>ELECTIVES:</b>	Modern World Conflicts ♦ AP Economics** ♦ AP Govt & Politics** ♦ AP Psychology** ♦ AP US History** AP European History** ♦ AP Human Geography** ♦ Dual Enrollment Western Civilization* ♦ General Psychology			
	<b>WMCTC:</b>	Western Montgomery Career & Technical Center students only need 3 credits of Social Studies. Students may satisfy American History requirement in 10th grade and take Economics/Sociology in 11th grade.			

## ELECTIVE COURSES

Courses listed below are available as electives for students in the grades marked "X".

Course	Course Name	Gr 9	Gr 10	Gr 11	Gr 12
<b>General Electives</b>					
<b>ART</b>					
ART2380	2-Dimensional Art		X	X	X
ART2381	3-Dimensional Art		X	X	X
ART3380	Advanced 3-Dimensional Art			X	X
ART1340	Do-It-Yourself (DIY) Art		X	X	X
ART1311	Digital Arts I	X	X	X	X
ART2311	Digital Arts II		X	X	X
ART2350	Advanced Graphic Design		X	X	X
ART1300	Intro to Art	X	X	X	X
ART2390	Advanced Photography		X	X	X
ART2300	Studio Art I		X	X	X
ART3300	Studio Art II			X	X
ART4700	AP Studio Art**				X
<b>BUSINESS</b>					
BUS2320	Accounting I	X	X	X	X
BUS3320	Accounting II		X	X	X
BUS1311	Career Exploration	X	X	X	X
BUS2350	Entrepreneurship		X	X	X
BUS1330	Principles of Business Management	X	X	X	X
BUS1340	Introduction to Marketing	X	X	X	X
BUS1312	Personal Finance	X	X	X	X
<b>COMPUTER SCIENCE</b>					
CIS1300	Intro to Computer Science	X	X	X	X
CIS2300	Computer Programming	X	X	X	X
CIS3310	Cybersecurity*			X	X
CIS3320	Introduction to App Design	X	X	X	X
CIS3700	AP Computer Science**		X	X	X
CIS2700	AP Computer Science Principles**		X	X	X
<b>FAMILY AND CONSUMER SCIENCE</b>					
FCS2330	Child Development		X	X	X
FCS1320	Fashion Design I	X	X	X	X
FCS2320	Fashion Design II		X	X	X
FCS3320	Fashion Design III			X	X
FCS1100	Foods 1A	X	X	X	X
FCS1110	Foods 1B	X	X	X	X
FCS2310	Housing/Interior Design		X	X	X
<b>GENERAL</b>					
GEN5201	Navy JROTC I	X	X	X	X
GEN5202	Navy JROTC II		X	X	X
<b>GENERAL</b>					
GEN5203	Navy JROTC III			X	X

Course	Course Name	Gr 9	Gr 10	Gr 11	Gr 12
GEN5204	Navy JROTC IV				X
HPE2310	Personal Fitness			X	X
HPE2200	Racquet Games		X	X	X
GEN1002	Service Learning			X	X
GEN4302	Pottsgrove Internship - Off campus experience				X
GEN2700	AP Seminar**	X	X	X	X
GEN2710	AP Research**		X	X	X
<b>MUSIC</b>					
MUS2740	AP Music Theory**		X	X	X
MUS1220	Concert Band		X	X	X
MUS1120	Concert Choir		X	X	X
MUS2120	Prima Voce		X	X	X
MUS2121	Vox Humana	X	X	X	X
MUS1240	Modern Band	X	X	X	X
MUS1400	Guitar	X	X	X	X
MUS1430	Guitar II	X	X	X	X
MUS2123	Chamber Choir		X	X	X
MUS2240	Music Theory I	X	X	X	X
MUS1020	Music Technology	X	X	X	X
MUS1320	Orchestra	X	X	X	X
MUS1420	Percussion	X	X	X	X
<b>TECHNOLOGY &amp; ENGINEERING EDUCATION</b>					
TED1321	Intro to Video Production	X	X	X	X
TED1322	Advanced Video Production	X	X	X	X
TED1360	Design Thinking & Prototype Engineering	X	X	X	X
TED1380	Robotics Engineering*	X	X	X	X
<b>WORLD LANGUAGE</b>					
WLG1310	French I	X	X	X	X
WLG2310	French II	X	X	X	X
WLG3310	French III		X	X	X
WLG4310	French IV*			X	X
WLG4710	AP French**				X
WLG1320	German I	X	X	X	X
WLG2320	German II	X	X	X	X
WLG3320	German III		X	X	X
WLG4520	German IV**			X	X
WLG4530	AP German**				X
WLG1300	Spanish I	X	X	X	X
WLG2300	Spanish II	X	X	X	X
WLG3300	Spanish III		X	X	X
WLG3500	Honors Spanish III*		X	X	X
WLG4300	Spanish for the Workplace			X	X
WLG4500	Spanish IV**			X	X
WLG4700	AP Spanish**			X	X

## **COURSE DESCRIPTIONS**

### **ELECTIVES**

#### **ART**

##### **2-DIMENSIONAL ART: Painting and Drawing (ART2380)**

2D Art is a project based class exploring various techniques and mediums within two-dimensional design. In this class students will gain an understanding of composition, three-dimensional shading, perspective, color mixing and color theory. Students will work in a variety of media such as graphite, color pencil, paint, cut paper, and ink/printmaking. Students work both realistically and abstractly.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Introduction to Art

##### **3-DIMENSIONAL ART: Sculpture and Ceramics (ART2381)**

In this hands-on course, a variety of sculptural techniques such as modeling, carving, and assemblage will be explored as students create their own three-dimensional projects. Clay handbuilding techniques of pinch, slab, and coil will be taught. For approximately half the year clay will be used and for the other half of the year different materials, such as wire, paper, found objects, and plaster will be explored.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Introduction to Art

##### **ADVANCED 3-DIMENSIONAL ART (ART3380)**

In this course students will explore materials and techniques and apply what they've learned in the previous class to create more comprehensive 3D artworks. Students will throw on the potter's wheel and learn more in-depth hand building techniques. Students will also learn the process of art criticism as they examine different types of sculptures.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: 3-Dimensional Art or teacher recommendation

##### **DIGITAL ARTS I (ART1311)**

In this half credit course, students will be exposed to the areas of Digital Arts that include graphic design, photography, and animation. Through a combination of learning the history of how these media have evolved over time, along with both paper based and digital projects, students will get to dive into these areas of study throughout the course. Students will work with projects such as typography design, logo creation, Photoshop, flip books, stop motion animation,

character design, camera obscuras, photography composition, Lightroom editing, and more.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All grade levels

Prerequisites: None

##### **DIGITAL ARTS II (ART2311)**

In this full credit course, students will build upon the knowledge they learned in our Digital Arts 1 class that introduced graphic design, photography, and animation. This course will allow students a chance to refresh on skills learned previously before diving deeper into the 3 areas of study. Students will then be able to help design their projects that incorporate the skills learned as a group, while pushing themselves to explore the areas of art and content that interests them the most. Students will work more with the digital programs in the Adobe suite as well as Procreate.

Credit: 1 credit – 6 days per cycle, full year

Open to: Grades 10-12

Prerequisites: Digital Arts 1 or any of the previous courses (graphic design, animation, and photography)

##### **ADVANCED GRAPHIC DESIGN (ART2350)**

An advanced graphic design/digital design art course that builds upon prior graphic design experiences with increased exposure to more varied processes and media. Students will be required to explore and design projects with new media & techniques, creatively combining contemporary and traditional solutions in order to solve new design challenges and problems.

Credit: 1/2 credit – 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Art teacher recommendation

##### **INTRODUCTION TO ART (ART1300)**

Introduction to Art is designed to provide a foundation for more advanced high school art courses. Emphasis is placed on understanding the Elements of Art and Principles of Design as a basis for composition. Students will explore a variety of artists, art processes and materials such as drawing, painting, printmaking, two & three-dimensional design, and digital art. Student artwork will reflect aesthetics & cultural and historical contexts. Willingness to get involved in the creative process is a more important requirement than the student's talent or previous experience.

Credit: 1/2 credit - meets 50 mins, 3 days per cycle, full year

Open to: All grade levels

Prerequisites: None



### **ADVANCED PHOTOGRAPHY (TED2370)**

This class requires students to prepare visual presentations relating to a central theme, idea, or content area. Presentations will be completed using different media including original photography, digital/scanned photography, and computer generated graphics. Emphasis will be placed on originality and clarity of subject, as students complete both static visual displays and dynamic on screen computer presentations. ACCESS to a camera is mandatory!

Credit: 1/2 credit - meets 50 mins, 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Art teacher recommendation

### **STUDIO ART I (ART2300)**

This course is designed for those students who want to build on their creative skills and the knowledge they gained in foundation. Basic art concepts such as design and composition are further explored through drawing, painting, crafts, and print making. Imagination, creative thinking, and the beginning development of a personal style will be emphasized. Students will research styles of various master artist and combine their own personal style or subject matter with the techniques that have evolved through time.

Credit: 1 credit - meets 50 mins, 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: At least an 70% final average in Introduction to Art or teacher recommendation

### **STUDIO ART II (ART3300)**

This class is for students who are interested in art as a career and/or students who enjoy art. Students will learn to refine their skills. Personal style will be discussed and students will have more freedom in their approach to particular assignments. Art appreciation, criticism, art history and production will be an integral part of the class.

Credit: 1 credit - meets 50 mins, 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: Studio Art I (ART2300)

Other: SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **AP STUDIO ART\*\* (ART4700)**

This course is designed for students who would like to go into the art field for their careers. In this class students would prepare projects specifically designed for a professional portfolio. Students in this course are expected to take the AP Examination.

Credit: 1 credit - meets 50 mins, 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Gifted student identification or Studio Art II or DEPARTMENT APPROVAL.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 60 minutes of work outside the classroom each day and COMPLETION OF A SUMMER PROJECT.

### **DO-IT-YOURSELF (DIY) ART (ART1340)**

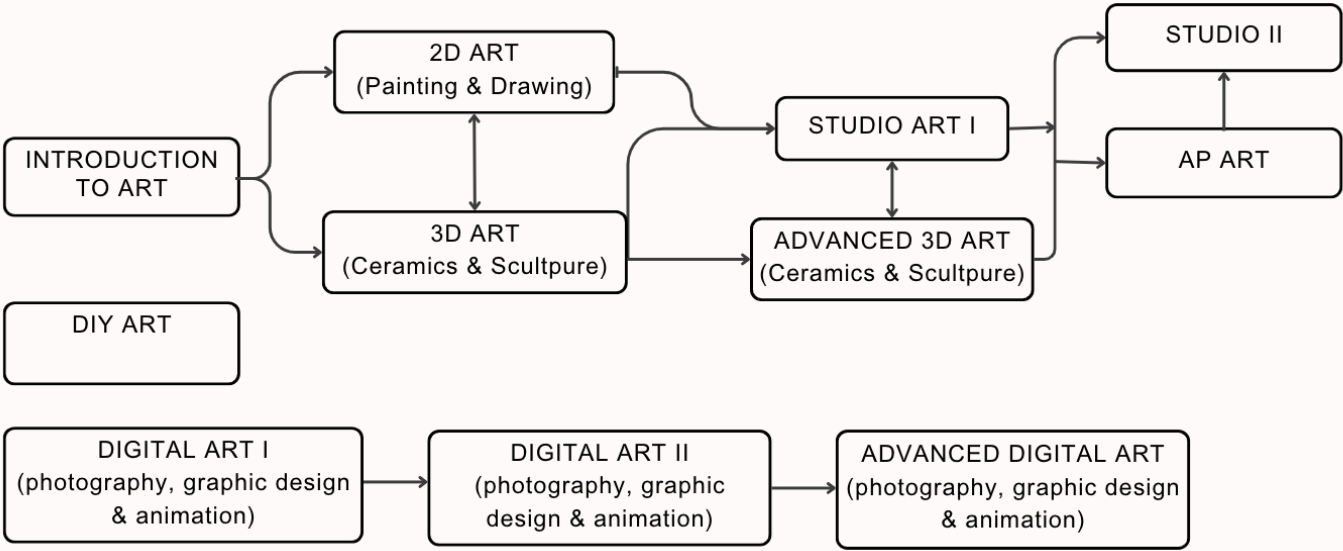
Students will research the trends in DIY art throughout the ages. They will look at the development of websites such as Pinterest and Etsy and how these along with blogging, social media, and online shopping have altered the crafting industry. They will work on DIY projects in the classroom and partner with local business owners and artists in order to learn how to market their art.

Credit: 1/2 credit - meets 50 mins, 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: None

# Art Course Progressions



## **BUSINESS**

### **ACCOUNTING I (BUS2320)**

Principles of accounting theory are taught. Content includes methods of recording business transactions, preparation of financial statements, and types of small business record keeping systems. This course will benefit all levels of students; including those seeking entry level employment or higher level education.

Credit: 1 credit - 6 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **ACCOUNTING II (BUS 3320)**

This course will cover the complete accounting cycle for a merchandising business organized as a corporation. The fundamental principles of accounting will be reinforced, but the course will focus primarily on more advanced accounting concepts and procedures. These procedures include recording transactions into different types of journals, posting to ledgers, recording purchases returns and allowances, recording international sales, accounting for uncollectible accounts, plant assets and depreciation, inventory, notes and interest, accrued revenue and expenses, and distributing dividends.

Credits: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Accounting I

### **CAREER EXPLORATION (BUS1311)**

Students will explore different careers based on their own preferences and skills. They will start with career preference and personality testing. Additional units of study include goal setting, job seeking and job keeping skills, resume writing and interviewing techniques. This is especially good for students who are unsure of what they want to do in the future after high school.

Credit: 1/2 credit – 3 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **ENTREPRENEURSHIP (BUS2350)**

Students will be introduced to the world of business ownership, the risks, the rewards and the challenges. Students will learn about what it takes to be a successful entrepreneur and will write and present a business plan for a new small business of their choosing. This involves the development of a proposal to start a new business, a self analysis (including the willingness to take risks), an analysis of the business situation, a description of the way the business will operate and detailed plans for financing the business through its first three years of operation. Any type of business may be used.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors or Seniors

Prerequisites: Principles of Business or Introduction to Marketing.

### **INTRODUCTION TO MARKETING (BUS1340)**

This course covers the foundations and functions of Marketing as described in the National Marketing Curriculum. It approaches marketing as an integrated set of tasks (functions), built on a solid set of foundations (economics, finance, career preparation). Students learn the various functions of marketing, but also discover how each function fits with the others in real world situations.

Credit: 1 credit - 6 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **PERSONAL FINANCE (BUS1312)**

This course will focus on basic financial literacy concepts. Students will learn about checking and savings accounts, investing and saving for retirement, credit and debt, applying for loans, insurance and personal budgeting among other topics. This course is a graduation requirement.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **PRINCIPLES OF BUSINESS MGMT (BUS1330)**

Students will be introduced to the world of business and basic principles of management. Concepts covered will include: economic systems, forms of business ownership, production and management, finance and credit along with current event topics.

Credit: 1 credit - 6 days per cycle, full year

Open to: All grade levels

Prerequisites: None

## **COMPUTER SCIENCE**

### **INTRO TO COMPUTER SCIENCE (CIS1300)**

In this course, high school students can acquire a fundamental understanding of the operation of computers and computer networks and create useful programs implementing simple algorithms. By developing Web pages that include images, sound, and text, they can acquire a working understanding of the Internet, common formats for data transmission, and some insights into the design of the human- computer interface. Exposure to career possibilities and discussion of ethical issues relating to computers will also be important threads in this course.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All Grades

Prerequisites: None

## **COMPUTER PROGRAMMING (CIS2300)**

Computer Programming involves activities such as analysis, developing understanding, generating algorithms, verification of requirements of algorithms including their correctness and resources consumption, and implementation or coding of algorithms in a java programming language. This course is intended to prepare student for AP courses and other computer science college-preparatory courses.

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grades

Prerequisites: Algebra I

## **CYBERSECURITY\* (CIS3310)**

The Introduction to Cybersecurity year-long version is designed for students with some exposure to computer science. Students will learn foundational cybersecurity topics including digital citizenship and cyber hygiene, the basics of cryptography, software security, networking fundamentals, and basic system administration. Students will complete projects at the end of each module, and a culminating course project where they will complete a simulated hack walkthrough. This is not a coding intensive course, but students will learn basic SQL and will utilize basic HTML and JavaScript within specific contexts and will be provided support within those contexts.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Completion of Computer Programming

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

## **INTRODUCTION TO APP DESIGN (CIS3320)**

The Introduction to App Design course is set up to help students build a solid foundation in programming fundamentals using Swift as the language. Throughout the course, students get practical experience with the tools, techniques, and concepts needed to build a basic iOS app from scratch. They'll also learn user interface design principles, which are fundamental to programming and making great apps.

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: None

## **AP COMPUTER SCIENCE A\*\* (CIS3700)**

This course, Advance Placement Computer Science A, emphasizes programming methodology and procedural abstraction. It includes the study of algorithms, data structures, and data abstraction. This course includes programming using the Java language, but several of the topics covered in the course are not exclusive to this programming language. This course represents college-level achievement. "Challenging course that gives fundamental

programming concepts using Java. It becomes understandable and clear with completion of homework." – Corey, Grade 11

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors.

Prerequisites: At least an 80% final average in Computer Programming.

Other: Students receive an additional 1.0 GPA points for each end of year course grade of C (73%) or better. Students can expect 40 minutes of work outside the classroom each day.

## **AP COMPUTER SCIENCE PRINCIPLES\*\* (CIS2700)**

AP Computer Science Principles introduces students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. The rigorous course promotes deep learning of computational content, develops computational thinking skills, and engages students in the creative aspects of the field.

Credit: 1 credit – 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors.

Prerequisites: At least an 80% final average in Intro to Computer Science

Other: Students receive an additional 1.0 GPA points for each end of year course grade of C (73%) or better. Students can expect 30 minutes of work outside the classroom each day.

## **FAMILY AND CONSUMER SCIENCE**

### **CHILD DEVELOPMENT I (FCS2330)**

Whether you expect to be a parent someday or expect to work with children in your future career, this course is for you! The physical, social, emotional, and intellectual development of a child from conception through to age six is studied. Emphasis is placed on parenting skills that will help in dealing with children of any age. Learning takes place through class discussions, reports, video and projects that give usable materials for children.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: None

### **FASHION DESIGN I (FCS1320)**

This course teaches principles of design in altering and constructing clothing and textile products. Students acquire an understanding of the skills and techniques necessary for simple garment construction as well as a basic knowledge of fabrics, fashion, and wardrobe planning. Some of the projects will be machine quilted tote bag, pajama pants, and a skirt with a zipper. Individual projects will incorporate the use of the sewing machine as well as hand sewing

skills and techniques. Students are required to purchase their own materials.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **FASHION DESIGN II (FCS2320)**

As a continuation of Fashion Design I students further explore the principles of design by altering and constructing clothing and textile products. Students expand their ability to read pattern directions, refine their skills and techniques for garment construction, as well as broaden their knowledge of fabrics, fashion, and planning wardrobes. Individual projects incorporate the use of the sewing machine as well as hand sewing skills and techniques. Students are required to purchase project materials.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Must have at least an 70% final average in Fashion Design I

### **FASHION DESIGN III (FCS3320)**

Students further explore the principles of design by constructing clothing and textile products using patterns plus incorporating skills gained in Fashion I and II. Students expand their ability to read pattern directions, refine their skills and techniques for garment design and construction, as well as broaden their knowledge of fabrics, fashion, and planning wardrobes. Projects incorporate the use of the sewing machine as well as hand sewing techniques and skills. Students are required to purchase materials to construct their projects.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: Must have at least an 70% final average in Fashion Design II

### **FOODS IA (FCS1100)**

This course studies the choices of foods one can make for a balanced diet. Management techniques, cooking skills and an appreciation of food preparation and services are learned. Specific topics include fruits, pasta and other grain products, dairy foods, eggs, cookies and other baking.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **FOODS IB (FCS1110)**

This course studies the choices of foods one can make for a balanced diet. Management techniques, cooking skills and an

appreciation of food preparation and services are learned. Specific topics include vegetables, meats, poultry, fish, cakes, and desserts.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **HOUSING AND INTERIOR DESIGN (FCS2310)**

The choices available in housing are explored. Architectural styles, construction terms, and finances involved in obtaining and maintaining a home are studied. You will learn how to use color and select and arrange furnishings to create a comfortable environment within the home. Final project will be the planning of your dream home.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: None

## **GENERAL**

### **Navy JROTC I (GEN5201)**

Navy JROTC I introduces students to the meaning of citizenship, the elements of leadership, the value of scholarship in attaining life goals, and engenders a sound appreciation for the heritage and traditions of America. It includes an introduction to leadership; naval customs and traditions; naval ships; their missions and organizations. Students will take field trips, learn to drill, be involved in community activities and have the opportunity to participate in a variety of extracurricular activities.

Credit: 1 credit - meets, 6 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **Navy JROTC II (GEN5202)**

Navy JROTC II challenges students to continue to develop their traits of citizenship, leadership, responsibility, self-discipline and appreciation for the heritage and traditions of America. It includes leadership; naval history through World War II; naval ships and shipboard evolution; naval weaponry; meteorology; navigation fundamentals; small boat seamanship; and survival training.

Credit: 1 credit - meets, 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A final average of at least 80% in Navy JROTC I

### **Navy JROTC III (GEN5203)**

Navy JROTC III continues to develop the trait of leadership in students and introduces them to military justice and international law, while continuing the instruction of naval science curriculum including astronomy; navigation and naval history including the interrelationship of sea power and national security.

Credit: 1 credit - meets, 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: A final average of at least 80% in Navy ROTC II

#### **Navy JROTC IV (GEN5204)**

Navy JROTC IV continues to develop students' leadership traits with a more in-depth study of leadership traits, principles and practices including the study of human motivation, group dynamics, effective communication, and the authority and moral responsibility of navy leaders. The course is oriented toward individual study with the students gaining leadership experience by assuming leadership positions in the other three Navy JROTC courses.

The Navy JROTC Instructor may waive the completion of Navy JROTC II and Navy JROTC III in unusual circumstances.

Credit: 1 credit - meets, 6 days per cycle, full year

Open to: Seniors

Prerequisites: A final average of at least 80% in Navy JROTC III

#### **SENIOR PRIVILEGE - Reserved for SENIORS ONLY**

**AM - (SR1000)**

**PM - (SR2000)**

Seniors that qualify for Senior Privilege will have the option to select AM or PM during the course selection process. Like other courses, this is not a guarantee, but should make the scheduling process more efficient for Seniors. If students are scheduled into this "course", eligibility will be checked once the scheduling process is complete during the summer months. Eligible students will be notified and will need signed parent permission at the start of next school year in order to arrive late or leave early. There are specific procedures that must be followed, this will be reviewed with students in August when we return to start the new school year.

#### **PGHS INTERNSHIP. (GEN4302)**

Students in grade 12 can gain experience in a particular career area such as accounting, real estate, engineering, retail, medical field, management, a non-profit organization, a K-8 educational setting, or some other workplace for career exploration and experience. This program will expose students to actual career settings, helping them examine their career interests, and explore avenues for continuing post-secondary education while gaining valuable real-world experiences. Students will earn varying amounts of credits based on their time spent at their internship. This is an off campus experience intended for job/career related experiences.

Credit: Dependent on number of periods and duration of the internship. For example, 1 period for the year, 5 hrs per week = 1 elective credits

Prerequisites: Must be on track to graduate in all major core areas, counselor review, and possess a high degree of dependability and dedication.

#### **SERVICE LEARNING (GEN1002)**

Eligible students will be trained to provide support service for the library, science labs, offices, etc. as additional service needs are identified.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: faculty recommendation, and high degree of dependability.

#### **AP SEMINAR\*\* (GEN2700)**

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

Credit: 1 credit – 6 days per cycle, full year

Open to: Sophomore, Juniors, Seniors

Prerequisites for Elective Credit: - No Prerequisite

Prerequisites for English Core Credit: - Students must have completed AP Language and AP Literature with a score of 3 or higher on the AP Exam in each course, or earned an 80% or higher in each course, or received principal approval. (See ENG2700)

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better.

#### **AP RESEARCH\*\* (GEN2710)**

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense.

Credit: 1 credit – 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: Students must take AP Seminar and score a 3 or higher on the AP exam or score an 80% or higher in the course.

Note: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better.

### **INTRO TO EDUCATION (GEN3500)**

Introduction to Education gives prospective teachers a proper introduction to the field of education. There is a strong emphasis on present-day practices, issues, and theories while also exploring ethics and educational history. While in class, students will participate in various instructional strategies both individually and in group settings. In addition, students will gain educational perspective while engaging in observations in an early childhood, elementary, or secondary school setting.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: None

### **WORKING WITH CHILDREN WITH SPECIAL NEEDS (GEN3510)**

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: None

Working with Children with Special Needs is an introductory course that provides students with an overview of the historical perspective as well as current issues and practices related to special education. Students will learn about laws that affect students with special needs and the classification of exceptionalities identified by the laws. Students will acquire knowledge of definitions, terminology, and assessment tools that relate to special education. The focus will be on the types of accommodations and adaptation that a teacher should make to support students with special needs to ensure their success.

## **GIFTED**

### **QUEST GIFTED SEMINAR (GFT1320)**

Quest Seminar is a course for gifted students where they can research and explore topics that affect the world and their community. Using a Socratic Seminar approach to engage students, topics have included politics, the stock market, climate change, mental health, education reform, technology and its impact on society, and career exploration. The course also features guest speakers and field trips to enrich students' understanding of potential careers and post-secondary educational opportunities.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Students with active GIEPs

Prerequisites: None

Meetings: Individually scheduled

## **HEALTH AND PHYSICAL EDUCATION**

### **HEALTH (HPE3300)**

This course is required for graduation. The course emphasizes the pursuit of healthful lifestyles and provides learning experiences that favorably influence understanding, attitude and conduct relating to personal health and well-being. The curriculum includes units on nutrition, fitness, disease prevention, mental health, human sexuality, substance abuse and safety and first aid.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors

Prerequisites: None

### **INDEPENDENT HEALTH STUDY (HPE2302)**

This is an individually paced independent online course. Students are required to meet unit goals and objectives with enforced unit test deadlines. The course emphasizes the pursuit of healthful lifestyles and provides learning experiences that favorably influence understanding, attitude and conduct relating to personal health and wellbeing. The curriculum includes units on nutrition, fitness, disease prevention, mental health, human sexuality, substance abuse and safety and first aid.

Credit: 1/2 credit – individually paced meeting unit goals and deadlines.

Open to: Sophomores, Juniors who meet the GPA requirement

Prerequisites: Students must complete the Independent Request Form in the HS School Counseling Office and be granted permission from the Principal. Students must also have a 90% (A) GPA at mid-year.

### **PHYSICAL EDUCATION 9/10/11/12 (HPE2000)**

Students in grades 9-11 are required to take this course. Seniors may choose this course as an elective. Students make activity selections from a wide variety of team sports and individual sports that are designed to improve personal fitness, skill development and knowledge in each activity as well as promote positive personal and social behavior. Fitness testing is required for all students. Additional activities are scheduled between units.

Credit: 1/3 credit - 2 days per cycle, full year

Open to: Freshmen, Sophomores

Prerequisites: None

### **INDEPENDENT PHYSICAL EDUCATION (HPE1303)**

Independent Physical Education is designed as an alternative to regular Physical Education. It provides students the flexibility to maintain a rigorous academic schedule and meet their graduation requirements. Any student enrolled in independent physical education must complete 60 hours of fitness-related activity and be



under the supervision of a PE Certified Teacher. The student must log/journal the activity and it must be signed off by a parent/supervisor of activity/coach/or advisor. At the end of the course, the fitness log and journal must be submitted to the PE Teacher assigned. This course is graded as pass or fail.

Special Note: PIAA sports and Marching Band cannot be used for hours in the activity log.

Credit: 1/3 credit

Open to: Students who cannot participate in regular physical education for the school year due to a medical condition, scheduling conflict, or senior students who need physical education credit for graduation. Students will not be permitted to take this course if they have open periods or study halls in their schedule.

Prerequisites: Requires Principal/Teacher approval

### **PERSONAL FITNESS (HPE2310)**

This elective is designed to develop maximum physical strength and endurance. Various weight lifting and stretching routines, as well as plyometric conditioning exercises are introduced to enhance speed, agility, flexibility, cardiovascular strength and self-confidence. Weight and muscular gains are monitored monthly.

Credit: 1/2 credit – 3 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: Department approval

### **RACQUET GAMES (HPE2200)**

This course will introduce students to the basic skills and knowledge associated with playing a variety of racquet sports such as tennis, badminton, table tennis, pickleball, etc. The goal of this class is to provide the students with the knowledge and skills necessary to pursue playing racquet sports as a life-long activity. This course will provide a safe learning environment for all students to practice positive personal and social skills.

Credit: 1/2 credit, 3 days per cycle, full year

Prerequisite: 1 year of regular PE

Open to: Grades 10-12

## **MUSIC**

### **CONCERT BAND (MUS1220, MUS1210)**

The concert band program is open to anyone who plays a concert band instrument, regardless of talent or experience. The concert band will rehearse in class to perform for various audiences and adjudicators throughout the school year. Students may still enroll in choir or orchestra if they are in concert band as well.

Credit: 1/2 (1220) to 1 (1210) credit - 3 or 6 days per cycle, full year

Open to: All Grades

Prerequisites: None

### **CONCERT CHOIR (MUS1120, MUS1110)**

The Concert Choir program is open to all interested students whether this is your first year in choir or your eighth. Concert Choir offers a unique and collaborative community of singers who work together to build the skills and techniques necessary to perform excellent music. There are many opportunities to grow as a singer, musician, performer, leader, and citizen. Concert Choir performs in the Winter and Spring Concerts as well as occasional school and community events.

Credit: 1/2 (1120) to 1(1110) credit - 3 or 6 days per cycle, full year

Open to: Freshmen, Sophomores, Juniors, Seniors

Prerequisites: None

### **PRIMA VOCE CHOIR (MUS2120)**

Prima Voce Choir is an advanced treble ensemble singing soprano and alto range repertoire. In order to be admitted into the choir, students must audition and be concurrently enrolled in Concert Choir. Students must have strong aural skills and sight-reading ability. Repertoire will be learned largely by sight reading. Members will perform at the Winter and Spring Concerts as well as other community and school events.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Students are admitted by audition only and must be concurrently enrolled in Concert Choir

### **VOX HUMANA CHOIR (MUS2121)**

Vox Humana Choir is an advanced bass clef ensemble singing tenor and bass range repertoire. In order to be admitted into the choir, students must audition and be concurrently enrolled in Concert Choir. Students must have strong aural skills and sight-reading ability. Repertoire will be learned largely by sight reading. Members will perform at the Winter and Spring Concerts as well as other community and school events.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Students must be concurrently enrolled in Concert Choir.

### **CHAMBER CHOIR (MUS2123)**

Chamber Choir, formerly Advanced Choir, is a small group SATB choir performing divici advanced repertoire from a variety of time periods, cultures and styles. In order to be admitted into the choir, students must audition concurrently enrolled in Concert Choir. Students must have strong aural skills and sight-reading abilities. Repertoire will be learned largely by sight reading. Members will perform in the Winter and Spring concerts as well as other community and school events.

Credit: 1/2 credit – 3 days per cycle, full year

Open to: Sophomores, Juniors, Seniors



Prerequisites: Students are admitted by audition only and must be concurrently enrolled in Concert Choir.

### **GUITAR (MUS1400)**

This entry level guitar course is designed for students who have never actively played an instrument of any kind. This course will explore the 14 basic guitar chords, barre chords, introduction to note reading and tablature. At the conclusion of this course, students will be able to read basic notes, chords and rhythms as they apply to guitar.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All Grades

Prerequisites: None

### **GUITAR II (MUS1430)**

The following guitar course is intended to be for students who have experience playing guitar or another musical instrument. This course will expose students to fingerstyle guitar, scales, advanced note reading, tablature, and advanced barre chords. Students will work independently on large performance tasks and will be required to perform with other students on larger pieces of work. Guitar II is designed to have students refine pre existing skills while developing musical skills in small groups.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All Grades

Prerequisites: Average of 80% or higher in Guitar, or teacher recommendation.

### **MUSIC TECHNOLOGY (MUS1020)**

Students will learn how to compose and create music using various Digital Audio Workstations such as GarageBand, Soundtrap, and Audacity. Students will learn about the music industry, basic music theory, and music production. Music Technology will focus on the fundamentals of song formation including layering, form, and rhythmic beat creating. Students will have the opportunity to explore more complex compositions and in-depth exposure to editing, mastering, and mixing songs.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All Grades

Prerequisites: None

### **AP MUSIC THEORY\*\* (MUS2740)**

The AP Music Theory course resembles that of a college freshman year theory course. This course incorporates the analysis of music, including melody, rhythm, harmony, texture, form, timbre and expression with composition and to some extent, history and style. Musicianship skills such as dictation, audiation, sight-singing, playing the piano and using music technology are developed within the

scope of the curriculum. Students are expected to take the AP Music Theory Exam in May.

Credit: 1.0 credit, 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: 80% final average in Music Theory I or be currently enrolled in Concert Band, Orchestra, or Concert Choir.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better.

### **MUSIC THEORY I (MUS2240)**

Music Theory I is for students who want to understand the building blocks and construction of music. Students will learn how to read music, analyze music from various historical periods, and independently compose music. This course will empower students to become more knowledgeable and capable performers as members of band, choir, and orchestra or as independent musicians. Music Theory I will cover topics such as key signatures, time signatures, major and minor scales, harmonies, transposition, and musical composition.

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grades

Prerequisites: None

### **ORCHESTRA (MUS1320, MUS1310)**

The orchestral program is open to all interested students. The orchestra competes and performs throughout the school year for both school and community functions. Students wishing to participate in two musical organizations should enroll in this course in order to participate in orchestra and band or choir. Students wishing to participate in two musical organizations should enroll in the ½ credit course in order to participate in orchestra and concert band or choir.

Credit: ½ (1320) to 1(1310) credit - 3 or 6 days per cycle, full year

Open to: All Grades

Prerequisites: None

### **PERCUSSION ENSEMBLE (MUS1420)**

This course exists to give percussionists basic and advanced skills on all standard percussion instruments, as well as the opportunity to perform Percussion Ensemble Music for small concerts and larger scale performances, including a competitive spring marching schedule.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All Grades

Prerequisites: Have completed, or enrolled in, AP Theory, Concert Band, Choir, Orchestra, or with a teacher recommendation for highly motivated individuals.

## **MODERN BAND (MUS1240)**

Modern band class is designed to help students play, perform, improvise and compose music using popular genres that the students themselves select. Students will learn how to play rhythm, lead, and bass guitar, as well as basic drum set, piano and vocals. This course is self guided and requires students to work with one another in small settings and create/perform music. Students will be required to perform concerts in their small groups every two weeks.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All Grades

Prerequisites: Have completed, or enrolled in, AP Theory, Concert Band, Choir, Orchestra, or with a teacher recommendation for highly motivated individuals committed to performing in small groups.

## **TECHNOLOGY & ENGINEERING EDUCATION**

### **INTRODUCTION TO BROADCASTING AND VIDEO PRODUCTION (TED1321)**

The focus for this course will be on creating and preparing various types of video products ready for broadcast. Students enrolled in this class will study the fundamentals of digital video editing/production including the preproduction, production, and post-production process. They will be given a series of projects to help develop their skill in the field. They will also learn the various roles involved in the Pottsgrove Morning News and will be asked to participate in the production.

Credit: 1 credit - 6 days per cycle, full year

Open to: All grade levels

Prerequisites: None

### **ADVANCED BROADCASTING AND VIDEO PRODUCTION (TED1322)**

Students will be responsible for the creation and running of the Pottsgrove Morning News, including learning and participating in all the roles in the production. Students will be creating and preparing various types of video products ready for broadcast. Students will also deepen their knowledge of video production by participating in a series of projects designed to explore other mediums of production including music videos, short films, and documentaries.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: Must have at least an 70% final average in Broadcasting and Video Production I or Permission from Technology Teacher

### **DESIGN THINKING & PROTOTYPE CREATION (TED1360)**

Design has become a cornerstone of the modern world as society looks to build new and creative solutions to problems. By using the

design thinking framework that is laid out by the Stanford University d.School, students will have opportunities to use design and design thinking to grapple with authentic problems.

While addressing these problems, students will develop a basic understanding of the materials and building techniques used in the manufacturing and construction industries today. Students will learn the proper and safe practice of hand tools, power tools and material processing machines. Additionally, students will be introduced to computer aided drafting (CAD), laser cutting, and 3D modeling software to help in the development of their solutions.

Credit: 1/2 credit - 3 days per cycle, full year

Open to: All Grades

Prerequisites: None

### **ROBOTICS ENGINEERING\* (TED1380)**

Robotics Engineering is an honors level course that is appropriate for 9th –12th grade students who are interested in the design, engineering and programming of robots, or another technical career. The Robotics Engineering course is designed to explore the past, current and future use of automation technology in industry and everyday use. The students will receive a comprehensive overview of robotic systems and the subsystems that comprise them.

With curriculum provided by Carnegie Mellon University and their National Robotics Engineering Center, the students will design, build, and program several autonomous robots using various programming languages throughout the course.

Throughout the course students may participate in competitions and engineering challenges using a variety of robotic systems. Careers in robotics, programming, and engineering will all be discussed.

Credit: 1 credit - 6 days per cycle, full year

Open to: All grade levels

Prerequisites: None

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

## **WORLD LANGUAGES**

All world language offerings are oriented to the college bound student. They are in-depth studies of grammatical structure and cultures, and include conversational skills. It is strongly recommended that non-college preparatory students have a “C” or higher in previous English classes for any beginning level of world language course of instruction. Selection of a particular language should be based not only on interest, but also on a student’s future educational plans and on information in the description for each world language course.

*The mission of the World Language Department is to create an environment in which students will develop skills which support communicative ability and an understanding of diverse cultural topics from countries where the target languages are spoken. The study of*

*World Languages expands students' view of the world, and encourages them to communicate and problem-solve with others in a global community.*

### **FRENCH I (WLG1310)**

This is an introductory course teaching reading, writing, listening and speaking skills based on vocabulary, conversations, and idioms presented in texts; it also develops skills of grammar, translation and comprehension. It offers a basic introduction to culture in France and French speaking countries around the world. This course is helpful for students planning a career in business, international affairs, the medical fields and political sciences.

Credit: 1 credit – 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: None

### **FRENCH II (WLG2310)**

This course is a continuation of skills taught in French I. Students will continue to develop their skills in the areas of reading, writing, speaking, and listening. Emphasis is given to strengthening vocabulary as well as comprehension of idiomatic expressions. Also included is a reference to culture, customs, and current events around the world that include French speaking people. This course is helpful for students planning a career in business, the medical field, education, social work, law, political science, or criminal justice.

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: A 70% final average in French I

### **FRENCH III (WLG3310)**

In level 3, students develop language skills, personal attitudes, and cultural insights necessary to experience life between cultures using French to connect with people and their own community. Most vocabulary and grammar are presented in context. Reference to various types of French literature is included, such as short stories, with strong emphasis on vocabulary building and refinement as well as a conversation. Focus on French francophone world culture, history, and current events are emphasized. A formal study of the phonetics of the French language is presented.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A 70% final average in French II

### **FRENCH IV\* (WLG4510)**

This course reinforces all of the concepts of grammar, vocabulary, and conversation learned previously. The student is introduced to classical and contemporary French literature and is encouraged to communicate in-depth about the literature and culture in French.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: An 80% final average in French III or permission of department

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better

### **AP FRENCH LANGUAGE\*\* (WLG 4710)**

This course in Advanced Placement French provides highly motivated students with an opportunity to pursue a college-level course in the French language. This course reinforces all of the concepts of grammar, vocabulary, and conversation learned previously. All facets of the program prepare the student for the Advanced Placement Examination administered in May. Students in This course is expected to take the AP Examination. This course has required summer course work.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: Completion of French IV with at least an 80% final average, or department recommendation.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (70%) or better. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **GERMAN I (WLG1320)**

This introductory subject teaches listening and speaking skills based on vocabulary, conversations, and idioms presented in the texts. It develops grammar, translation, and comprehension skills while providing German culture in a functional approach. This course is helpful for students planning to major in math and science as well as the medical and political sciences.

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: None

### **GERMAN II (WLG2320)**

This course expands the student's comprehension and speaking abilities. It emphasizes vocabulary acquisition and provides a more detailed, intricate study of grammar, translation, and idioms. Culture is taught in the context of the text. This course is helpful for students planning careers in fields of math and science as well as medicine and political science.

Credit: 1 credit – 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: A 70% final average in German I

### **GERMAN III (WLG3320)**

This course continues to develop the skills learned in German II and to expand the functional reading and writing exercises in preparation for more detailed writing and reading related to the German classics

in level IV. German culture and civilization are also examined in more depth.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A 70% final average in German II

### **GERMAN IV\*\* (WLG4520)**

In this course, students continue to develop their German language skills by engaging with a variety of cultural topics and themes in the German-speaking countries, e.g. the reunification of Germany, famous inventions and products from Germany and Switzerland, and the role of sustainability in contemporary Germany. Building on the grammar they have learnt in previous semesters and expanding their vocabulary, students grow their reading, speaking, writing, and listening skills. The course emphasizes meaningful, contextualized communication and comprehension, and is held in German. Students are working towards the B1-level according to the CEFR (Common European Framework of Reference).

\*\*Students who elect the dual-enrollment option will receive 3 college credits from University of Pittsburgh upon satisfactory completion of each semester. This option also includes a fee that is paid to University of Pittsburgh to cover the cost of the credits.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: An 80% final average in German III or permission of department

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30 minutes of work outside the classroom each day.

Note: This course is offered as a dual-credit course with the University of Pittsburgh. Students taking this course as dual enrollment are required to take the final exam.

### **AP GERMAN LANGUAGE\*\* (WLG4720)**

In this course, students continue to develop their German language skills by engaging with a variety of cultural topics and themes in the German-speaking countries, from the role of the EU to life in the GDR. Building on the grammar they have learnt in previous semesters and expanding their vocabulary, students grow their reading, speaking, writing, and listening skills. The course emphasizes meaningful, contextualized communication and comprehension, and is held in German. At the end of this course, students should be at the B1-level according to the CEFR (Common European Framework of Reference).

\*\*Students who elect the dual-enrollment option will receive 3 college credits from University of Pittsburgh upon satisfactory completion of each semester. This option also includes a fee that is paid to University of Pittsburgh to cover the cost of the credits.

Credit: 1 credit - 6 days per cycle, full year

Open to: Seniors

Prerequisites: At least an 80% final average in German IV, or permission of department

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. Students can expect 30 minutes of work outside the classroom each day.

Note: This course is offered as a dual-credit course with the University of Pittsburgh. Students taking this course as dual enrollment are required to take the final exam. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **SPANISH I (WLG1300)**

This is an introductory course teaching reading, writing, listening and speaking skills based on vocabulary, conversations, and idioms presented in texts; it also develops skills of grammar, translation and comprehension. It offers a basic introduction to the culture of Spanish-speaking communities, emphasizing Mexican and US Latino customs. This course is helpful for students planning a career in business, social work, law, criminal justice, the medical fields and political sciences.

Credit: 1 credit – 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: None

### **SPANISH II (WLG2300)**

This subject is a continuation of skills taught in Spanish I to teach the developmental stages in reading, writing, listening, and speaking. Emphasis is given to strengthening vocabulary. Also included is a reference to culture, customs and current events of Caribbean, Central, and South American countries. This course is helpful for students planning a career in business, the medical field, education, social work, law, political science, or criminal justice.

Credit: 1 credit - 6 days per cycle, full year

Open to: All Grade Levels

Prerequisites: A 70% final average in Spanish I

### **SPANISH III (WLG3300)**

This subject continues development of the skills learned in Spanish I and II. The student is introduced to advanced grammatical skills, as well as the concept approach to writing and further development of conversational ability. Reference to various types of Spanish literature is included, such as short stories, with strong emphasis on vocabulary building and refinement as well as conversation. Focus on Spanish (Spain) culture, history and current events are emphasized. A formal study of the phonetics of the Spanish language is presented.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A 70% final average in Spanish II

### **HONORS SPANISH III\* (WLG3500)**

This subject continues development of the skills learned in Spanish I and II at an accelerated rate. The student is introduced to advanced grammatical skills, as well as the concept approach to writing and

intensive development of conversational ability. Reference to various types of Spanish literature is included, such as short stories with strong emphasis on vocabulary building and verbal expression. Focus on Spanish (Spain) culture, history, and current events are emphasized. A formal study of the phonetics of the Spanish language is presented. The majority of the class (90%) is conducted in Spanish. Being a college-level course, students are expected to work at a college-level pace, devoting a significant amount of time outside of class on preparation and review. This course is helpful for students planning a career in business, the medical fields, education, social work, law, political science, or criminal justice. This course has required summer course work.

\*\*Students who elect the dual-enrollment option will receive 3 college credits from Montgomery County Community College upon satisfactory completion of each semester for a total of 6 credits. This option also includes a fee that is paid to MCCC to cover the cost of the credits.

Credit: 1 credit - 6 days per cycle, full year

Open to: Sophomores, Juniors, Seniors

Prerequisites: A 90% final average in Spanish II and level 2 teacher recommendation. If the final average in Spanish II is LESS than 90%, departmental approval is REQUIRED for enrollment.

Other: Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

Note: This course is offered as a dual-credit course with MCCC. Students taking this course as dual enrollment are required to take the final exam. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **SPANISH IV\*\* (WLG4500)**

This course of instruction is a continuation of those skills learned in Spanish I, II and III with strong emphasis on reading, writing, and speaking in Spanish. It builds foundation in Spanish through study of poetry, literature, and drama. Literature includes the "classics" of Spain as well as the Spanish-speaking world. Student lead in-depth examination of various Hispanic countries occurs. The majority of the class (90%) is conducted in Spanish. Being a college-level course, students are expected to work at a college-level pace, devoting a significant amount of time outside of class on preparation and review. This course is highly recommended for students planning a career in business, the medical fields, education, social work, law, political science, or criminal justice. Expectation is for student verbal and written production to be in Spanish. This course has required summer course work.

\*\*Students who elect the dual-enrollment option will receive 3 college credits from Montgomery County Community College upon satisfactory completion of each semester for a total of 6 credits. This option also includes a fee that is paid to MCCC to cover the cost of the credits.

Credit: 1 credit - 6 days per cycle, full year

Open to: Juniors, Seniors

Prerequisites: A final average of 80% in Honors Spanish III is required. If Honors Spanish III final average is LESS than 80%,

departmental approval is required. Non-honors Spanish III students are eligible ONLY with teacher recommendation

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better.

Note: This course is offered as a dual-credit course with MCCC. Students taking this course as dual enrollment are required to take the final exam. SUMMER WORK IS REQUIRED FOR THIS COURSE.

### **SPANISH FOR THE WORKPLACE (WLG4300)**

This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is on oral communication and career-specific vocabulary that targets social services, law enforcement, medical careers, getting along, the hospitality industry and the housing development industry. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

Credit: 1 credit – 6 days per cycle, full year

Open to: Juniors and Seniors

Prerequisites: A 70% final average in Spanish III, Honors Spanish III\* or Spanish IV\*.

### **AP SPANISH LANGUAGE \*\* (WLG4700)**

This course in Advanced Placement Spanish provides highly motivated students with an opportunity to pursue a college-level course in Spanish language. All facets of the program prepare the student for the Advanced Placement Examination administered in May. Students in this course are expected to take the AP Examination. This course has required summer course work.

Credit: 1 credit - 6 days per cycle, full year

Open to: Any eligible student

Prerequisites: Completion of Spanish IV with at least an 80% final average, or department recommendation.

Other: Students receive an additional 1.0 GPA points for each end of course grade of C (73%) or better. SUMMER WORK IS REQUIRED FOR THIS COURSE.

## **MCCC DUAL ENROLLMENT** **POTTSTOWN CAMPUS**

*MCCC course offerings for 2024-2025 will be confirmed in Spring 2024..*

### **DUAL ENROLLMENT COURSES AT PGHS OR MCCC POTTSTOWN**

Credits: 1+

Open to: Sophomores, Juniors, and Seniors

Prerequisites: Must be 15 years of age or older, be in good academic standing, have a high school transcript, and meet MCCC prerequisite, if necessary, based on the high school transcript.

Transportation: If necessary van transportation must be requested by the student(s) and can be provided for Monday, Wednesday, and

Friday classes at MontCo Pottstown Campus from 8:00 – 8:50 am. Students will return to PGHS by 3rd period. Students will need their own transportation for approved courses that do not occur on this schedule.

Tuition: All financial obligations for application and enrollment will be the responsibility of the student and his/her/their family. Tuition, books, and fees are billed directly by MontCo. The bill will be available in the student's MontCo Connect account. If a payment plan is needed, it can be requested through the MontCo financial aid office online student payment period.

Other: Full-time dual-enrollment students and students taking more than 7 weighted dual-enrollment credits throughout the year are excluded from class rank. Dual-enrollment students will be awarded a 1.0 increase in GPA points for all dual enrollment courses culminating in a grade of C (73%) or better. Courses will require approval of PGHS Guidance Department as well as MCCC admissions.

## WMCTC COURSE DESCRIPTIONS

**Please note: 9th Grade Students are now required to select their program of interest.**

### **Precision Machining**

A precision machinist uses various high-tech machine tools to machine and remove material for the purpose of producing the many manufactured products we use in our daily lives. These products and components are across every industry sector and range from automotive components to military applications to medical devices. The training students will receive in this program will prepare them with the in-demand skills regional and global employers seek and value.

Students in this program will learn the safe use of hand tools and the set-up and operation of conventional machine tools such as lathes, milling machines, drill presses, and surface grinders. The emphasis of the training focuses on the set-up, operation and programming of Computer Numerically Controlled(CNC) machine tools. CAD/CAM programming software instruction and training is a key component of the CNC instruction.

Additionally, the interpretation of engineering drawings, semi-precision and precision measurement, heat treating, statistical process control, material characteristics and metallurgy are components of the curriculum. Industry certifications may be earned through: National Institute for Metalworking Skills (NIMS); Career Safe – OSHA 10; S/P2 Machining.

Students who complete this program of study have exceptional opportunities to gain immediate employment in the field or pursue post-secondary education, or enter the military.

POST SECONDARY OPPORTUNITIES: Pennsylvania College of Technology, Thaddeus Stevens College of Technology, Reading Area Community College, Montgomery County Community College, and Delaware County Community College

### **Automotive Technology**

The Automotive Technology program has been specifically designed to prepare students to continue their training at post-secondary schools or enter industry upon graduation. The program follows Pennsylvania's program of study. The program content consists of classroom instruction in: automotive fundamentals, brakes, steering and suspension, electrical/electronic systems, engine performance, drivetrain principles, engine repair, HVAC and PA Safety and Emission Inspection procedures. The program utilizes a combination of classroom instruction, computer-based learning and hands-on lab work for an innovative learning process. Level 3 students have the opportunity to qualify for participation in various manufacturers' sponsored automotive skills competitions that offer scholarship money and prizes. Also, Level 3 students can qualify for our cooperative education program.

POST-SECONDARY OPPORTUNITIES: Penn College of Technology; Northampton Community College; Automotive Training Center, Thaddeus Stevens College of Technology. This program is an approved Program of Study.

### **Biomedical Science PLTW STEM Program\* (Grades 11 and 12 only)**

The Project Lead the Way (PLTW) Biomedical Science program is designed for college-preparatory students who are interested in pursuing a medical or health science career. The rigorous three-course Biomedical Science sequence, Principles of Biomedical Science, Human Body Systems, and Medical Intervention is a nationally recognized curriculum that allows students to investigate the roles of biomedical professionals as they study the concepts of human medicine, medical terminology, physiology, genetics, microbiology, and public health. The PLTW curriculum is project-based and will expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts.

Students applying to this program will need to submit an application, interview with the instructor, have a recommended 3.0 GPA, upper level science/math, and the ability to provide their own transportation to the clinical sites.

The opportunity for clinical experience in various health care facilities is always pursued for these students.

\*\*An updated immunization record, 2-step PPD, flu shot, and a background check may be required for participation in the clinical experience.

Students receive an additional .5 GPA points for each end of course grade of C (73%) or better.

### **Carpentry**

The Carpentry Program is designed to prepare students for entry-level employment and/or career education at the college level. Students begin by learning the basic skills of Carpentry and Cabinet-making through hands-on experiences in residential construction. Cooperative Education and Apprentice employment opportunities are made available when the student is ready. In the final semester, students are prepared for further education with an introduction to construction management.

#### POST SECONDARY OPPORTUNITIES/ARTICULATION

AGREEMENTS: Penn College of Technology; Thaddeus Stevens College of Technology; Associated Builders & Contractors (ABC) Apprenticeship program. This program is an approved Program of Study.

### **Collision Repair**

This program is designed for students interested in pursuing employment in the field of collision and auto body repair. Students have the opportunity to gain entry-level skills required for this profession. These skills are acquired through classroom presentations, textbook readings, and hands-on experiences. Students use hand tools and power tools to perform the various training activities. The Collision Repair program covers instructional areas such as: safety instruction, estimating and customer relations, and frame and uni-body repair. Students are also instructed in metal straightening, welding and cutting, panel replacement and alignment, surface preparation, and masking and painting. During the course students are expected to develop job acquisition skills. The importance of safety, quality, productivity and teamwork is also emphasized in this program. Students in this program should have



patience and attention to detail. Additionally, the Collision Repair program follows the ICAR (Industry Curriculum of Automotive Repair) curriculum.

#### POST SECONDARY OPPORTUNITIES/ARTICULATION

AGREEMENTS: Penn College of Technology; Thaddeus Stevens College of Technology. This program is an approved Program of Study.

### **Commercial Art**

The Commercial Art Program spans a number of areas related to visual communications. Students prepare layout and design artwork for magazines, newspapers, flyers, brochures, posters, and packaging – as well as traditional and hands on drawing projects. While learning these areas of study, students compile a portfolio to show potential employers or prepare for college entrance interviews. Academic skills utilized during this course are reading, writing, and basic math. Emphasis is placed on communication, elements and principles of art and design, design history, typography, color theory, and many other forms of art.

Heavy emphasis is placed on “thinking outside of the box” and creative problem solving. Students will learn computer skills and drawing skills, working towards mastering the tasks laid out in the Commercial Art Task Grid. Students completing this program will have a portfolio under their arm, and skills in their head and hands, with confidence to succeed in the workplace or further education.

POST SECONDARY OPPORTUNITIES: Penn College of Technology; Montgomery County Community College; Art Institute of Philadelphia; Antonelli Institute; Kutztown University; University of the Arts; California University of PA; and many more. This program is an approved Program of Study.

### **Computer Information Systems**

Computer Information Systems (CIS) is a program designed for students interested in pursuing careers in Information Technology. Areas of focus include basic and advanced hardware and software topics with an emphasis on Networking. Students will be using A+ and Net+ curriculum in the CIS program. Students will be eligible to test for A+, Net+, and Cisco CCENT Certification. Students enrolled in the CIS program must be highly motivated and committed to achieving personal excellence. Based on the amount of technical information each student must acquire from books and manuals, good reading and comprehension skills are essential for success in the program.

#### POST SECONDARY OPPORTUNITIES/ARTICULATION

AGREEMENTS: Allentown Business School; Delaware County Community College; Immaculata University; Penn State University; Drexel University; Temple University; Montgomery County Community College; and many more. This program is an approved Program of Study.

### **Cosmetology**

The Cosmetology program is designed to prepare students for the PA state professional licensing examination for Cosmetologists and entry-level employment in the profession. Students are provided the

opportunity to earn 1250 hours of state required instruction. Upon completion of 900 hours, students are eligible and encouraged to take the state licensing exam. Students who pass the state board exam and successfully complete 1250 hours will qualify for PA state licensure, often times prior to graduation. Students will develop skills in all aspects of Cosmetology including the following services: sculpting, styling, perming, hair color, skin care, chemical hair straightening, hair additions, nails and most importantly people skills. It is necessary for students to have organizational abilities and time management skills, as well as the capability to work independently. Students should also possess a sense of form, artistry, and creativity. Hands-on experiences are obtained a minimum of two days a week in the WMCTC salon.

POST SECONDARY OPPORTUNITIES: Cosmetology schools offer post-secondary training for students who wish to pursue a Cosmetology teacher’s license. College opportunities: Students looking to add a Business component to their Cosmetology license may consider MCCC (Associate of Applied Science Degree in Management), St. Francis University (Associate of Applied Science Degree in Human Resources/Computer Technology)

### **Culinary Arts**

This instructional program prepares students for employment in institutional or commercial food establishments or other food industry occupations. Instruction includes theory and applications related to planning, selecting, purchasing, preparing (cooking and baking) and serving of quantity food and food products; nutrition; use and care of commercial equipment; safety and sanitation precautions. Practical experience is a major part of the course through the operation and management of a complete food service facility. This program is based on proven culinary operations and techniques used in country clubs, restaurants, hotels, cafeterias, hospitals, and (in-plant) industrial feeding. The graduate has a wide range of job offers to choose from because the food service field is presently the second largest industry in the country. From our teaching exposure, experience, co-op training, and job placement program, a student can start their career in any of the S.O.C. Titles shown. Upon completion of this program, students will be prepared for entry-level positions in the food service industry or advanced study at a culinary college or university.

#### POST SECONDARY OPPORTUNITIES/ARTICULATION

AGREEMENTS: Culinary Institute of America; Johnson & Wales University; Penn College of Technology; Montgomery County Community College; Baltimore International College, Philadelphia Restaurant School. This program offers dual enrollment in meeting with Montgomery County Community College requirements. This program is an approved Program of Study.

### **Dental Occupations**

The Dental Occupations program prepares students for entry-level employment as a dental assistant and a strong foundation for continuing to post-secondary education. This program incorporates lectures, demonstrations, and hands-on experience in a variety of dental related subjects. The students will develop the knowledge and skills necessary to provide safe practices by following OSHA



standards. Course work will include: introduction to healthcare, infection control, safety and emergency procedures, ethical/legal responsibilities, patient care and procedures, office procedures, radiology, operative dentistry, dental materials, and dental laboratory procedures. Upon completion of this program, the students will be well prepared for a career in the dental field. Dental assistants assist the dentist during examination and treatment of the patients. Students will be able to apply what they have learned to real world settings such as: Preparing a treatment room, sterilizing instruments, preparing and making dental impressions for study models, exposing and processing dental radiographs, and providing chair side assistance for the dentist.

#### POST SECONDARY OPPORTUNITIES/ARTICULATION

AGREEMENTS: Montgomery County Community College, Penn College of Technology, Harcum Junior College, Northampton Community College. This program is an approved Program of Study.

### **Diesel Technology**

The Diesel Technology program is designed to prepare students to repair and service diesel engines used to power buses, trucks and construction machinery. The employment outlook for diesel mechanics and technicians in PA is projected to increase over the next several years. Instruction in this program will include the diagnosis of engine malfunctions, disassembly of engines, examination of parts, reconditioning and replacement of parts, controls and transmissions, the PA state inspection code, and many other skills necessary to enter the diesel automotive field in an entry level position. Classroom instruction, computer based learning and hands-on lab work is all utilized for effective learning.

POST SECONDARY OPPORTUNITIES: Penn College of Technology. This program is an approved Program of Study.

### **Early Childhood Education (Grades 10, 11 and 12 only)**

The Early Childhood Education program offers training for employment in the Early Childhood profession leaving WMCTC CDA Ready Certification or a strong foundation for continuing into post-secondary education. This "teacher training" course emphasizing literary-based curriculum is the development of the knowledge and skills necessary to provide safe, healthy, positive, developmentally appropriate, high quality care for young children. Classroom instruction is reinforced with hands-on experience teaching toddler and preschool-age children who are enrolled in the WMCTC Buckaroo Nursery School. Opportunities to visit quality childcare facilities to observe qualified teachers is offered during the first year. Course work includes: instruction in PA Dept. of Human Service regulations, Pediatric CPR and First Aid Certification, nutrition, child development, structuring routines, time management, curriculum planning, positive guidance techniques, observing children's behavior and supervisory skills relating to children. Students will prepare, implement, and assess lessons based on self-help skills, self-concept, art, language arts, music, math, science, social sciences, and developmentally appropriate practices.

POST SECONDARY OPPORTUNITIES: Montgomery County Community College; Reading Area Community College; most 4-year colleges. This program is an approved Program of Study.

### **Electrical Occupations**

This program has been developed to give students entry-level skills and knowledge to directly enter the workforce or pursue further education. The program incorporates a combination of theory lessons and practical experiences that provide instruction in electrical theory, National Electrical Code, residential, commercial, and industrial wiring techniques, telecommunications, security, fire alarm, and electrical maintenance. The importance of safety, quality, productivity and teamwork is also emphasized. Graduates may enter an apprenticeship program to be trained as a highly paid journeyman electrician, or lineman. Electricians install, connect, test, and maintain electrical power systems for residential, commercial, and industrial buildings. Students can also further their education at a technical school or university to become an electrical systems technician, or an electrical engineer. The electrical occupations student should have good mechanical aptitude, manual dexterity, eye-hand coordination, able to distinguish between colors, mathematics fundamentals, and reading ability.

#### POST SECONDARY OPPORTUNITIES/ARTICULATION

AGREEMENTS: Penn College of Technology; Penn State University; Montgomery County Community College; Thaddeus Stevens State College of Technology; Reading Area Community College; Lincoln Technical School; Associated Builders & Contractors (ABC) Apprentice Program; International Brotherhood of Electrical Workers (IBEW) Apprentice Program. This program is an approved Program of Study.

### **Health Science Technology. (Grades 10, 11 and 12 only)**

The Health Science Technology program consists of three components: Introduction to Health Care and Careers, Nursing Assistant (NA) Prep Program and Medical Assistant (MA) with Medical Terminology.

Introduction to Health Care and Health Careers is presented to first year students with an introduction to the healthy body as well as the diseased body. Research is completed by the students regarding a disease process to present to the student body and community as a contribution to the public related to health. Certification in CPR and First Aid are obtainable.

The NA Prep component provides students with skills that enable them to work in a long-term care facility, hospital, or home care setting following completion of a three-week course outside of school at an approved PDE testing site. A Nurse Assistant (NA) is a member of a team that provides direct patient care as directed by the RN, while utilizing technical skills. This individual is also responsible for completing and documenting patient care activities. A Nurse Assistant promotes communication between the health care team and the patient, and demonstrates initiative, flexibility and good work ethic. Students are instructed in skills, clinical rotation and theory as required by the Pearson Vue/PDE competency program. In addition, students will complete requirements to be certified in CPR/First Aid. The MA component will teach anatomy and physiology in depth as well as nutrition, communication, pharmacology and medical ethics. The Medical terminology section provides a blueprint for learning medical vocabulary that is used in all aspects of health care. Skills

that will be taught include EKG technique, principles of phlebotomy, blood and body fluid precautions, vital signs, positioning a patient for procedures, and medication administration. First Aid certification and school-to-work based opportunities are available to eligible students.

**POST SECONDARY OPPORTUNITIES:** Montgomery County Community College; Gwynedd Mercy College; Northampton Community College; Reading School of Nursing and Radiology; Alvernia College, Penn College of Technology, Bloomsburg Duquesne University, Georgia Southern University and others. This program offers dual enrollment in meeting with Montgomery County Community College requirements. This program is an approved Program of Study.

### **Heating, Ventilation & Air Conditioning (HVAC)**

This program provides knowledge and skill training in: Introduction to HVAC, Safety, Hand & Power Tools, Blueprint reading, Piping Practices, & HVAC Electricity. The student will learn to Install, Troubleshoot, & Service Oil, Gas & Electric Heating, Air Conditioning, & Heat pump Units. The combination of lab practice and theory prepares students for entry-level employment and advancement in today's Heating, Ventilation and Air Conditioning (HVAC) industry. Students entering this program should have a basic mechanical aptitude, be able to move heavy objects, be self-motivated and a self-starter.

**POST SECONDARY OPPORTUNITIES:** Penn College of Technology; Montgomery County Community College; Thaddeus Stevens State College of Technology; Associated Builders & Contractors (ABC) Apprenticeship Program.

### **Introduction to Medical Careers. (Grade 9 only)**

Introduction to Medical Careers is a yearlong 9th grade class that will focus on three of WMCTC's Medical Programs. An emphasis will be placed on units that are taught in WMCTC's Medical Programs which include: Health Science Technology, Dental Occupations and Sports Medicine. Key units of instruction will feature lessons in anatomy, medical terminology, physiology, human body systems, medical ethics, and many more. At the conclusion of the 9th grade program, students will be allowed to choose which specific program they want to join as 10th graders. The class will be academically rigorous and feature a final exam.

### **Protective Services**

Protective Services and Homeland Security is an instructional program that prepares individuals to apply technical knowledge and skills required to perform entry-level duties in law enforcement, firefighting, EMS and other public safety services. This program stresses the techniques, methods and procedures specific to the areas of criminal justice and fire protection especially in emergency and disaster situations. Physical development and self-confidence skills are emphasized due to the nature of the specific occupation(s). In addition to the application of mathematics, communication, and science, students receive training in social and psychological skills, criminal investigations, vehicle and equipment operations, the judicial system and landmark Supreme Court decisions, crime scene

processing, pre-hospital emergency medical care and appropriate emergency assessment, treatment and communication. Students will learn skills from the entry-level firefighter 1 curriculum including ground ladders, water supply, hose line advancement and use of Self Contained Breathing Apparatus.

**POST SECONDARY OPPORTUNITIES:** Montgomery County Community College; Montgomery County Police Academy, Northampton County Community College, Reading Area Community College; Pennsylvania College of Technology. This program is an approved Program of Study.

### **Sports Medicine (Grades 10, 11 and 12 only)**

The Sports Medicine program will be designed to prepare students for a number of technical fields related to kinesiology. Instruction includes theory and applications related to: Athletic training, anatomy and physiology, medical terminology, exercise physiology, pathophysiology, injury recognition, injury management, rehabilitation, restorative care, physical therapy, strength training and high intensity training, weight management, nutrition, resistance training, exercise programming, mental health and wellness. Students will learn essential skills directly related to the Athletic Training and Physical Therapy career paths. Students will learn to design safe and effective exercise prescriptions, conduct individual exercise programs, and fitness testing. Students will be prepared for employment in a wide variety of settings that include, but are not limited to, athletic teams, hospitals, corporate wellness programs, strength and conditioning, clinical rehabilitation programs, and fitness clubs. In addition, the program serves as a strong foundation for students wishing to pursue advanced degrees in the field of exercise science or enter professional disciplines such as physical or occupational therapy. Industry certifications may be earned in American Heart CPR/AED, American Heart First Aid and Personal Training Certification (ACSM).

### **Welding and Metal Fabrication**

The welding program prepares students to apply technical knowledge and skills in Shielded Metal Arc Welding, Gas Metal Arc Welding, Gas Tungsten Arc Welding, Flux-core Arc Welding, brazing, and torch/Plasma cutting. Students learn safety practices, types and application of electrodes and welding rods, properties of metals; industrial drawing reading; principles of electricity, interpretation of welding symbols, quality control for testing welds by various methods, use of manuals and specification charts, use of portable grinders and hand tools; positioning and clamping, fabricating, fixturing, and welding standards established by the American Welding Society.

Welding & Fabrication offers immediate job prospects with potential for growth and promotion. Welding career pathways also include college where students can consider a field of study in welding engineering or Welding inspection (CWI)metallurgy. Brazing and soldering are closely related fields in which welders may achieve proficiency. Individuals in these occupations set up, operate, and monitor welding, soldering, or brazing machines that weld, braze, solder, or heat treat metal products, components, or Fabrication.

Those individuals completing the welding program may be employed as Welders, fabricators, Welder/Fabricator, cutters, mig welders, sub arc operators, Welding Engineer, CWI, and Quality inspector, aluminum welders, spot welders, fitter welders, maintenance welders, and welders.

Students who complete this program of study have exceptional opportunities to gain immediate employment in the field, pursue post-secondary education, or enter the military.

POST SECONDARY OPPORTUNITIES: Pennsylvania College of Technology, Thaddeus Stevens College of Technology, Triangle Tech, and Delaware County Community College

### **C.E.O. – Career Exploration Opportunities- (formally V.O.I.C.E.)**

This program is designed to integrate career education and transition planning for students. The foundation of the C.E.O. program is built on the effectiveness of applied, hands-on instruction in career education. This program provides students with disabilities intensive support in a variety of career areas. Additionally, students receive direct instruction in career development, job preparation, and skills training. The program exposes students to a variety of career opportunities to enhance employability skills.

### **School-to-Work Program at the Western Montgomery Career & Technology Center**

WMCTC strives to provide every student with the opportunity to participate in an on-the-job experience. WMCTC has partnered with various businesses and industries to provide employment in the student's technical field of study. Students must meet the eligibility requirements along with the recommendation from their technical instructor. This opportunity occurs during the senior year of the student's technical program.

Other school-to-work programs include job shadowing, clinical experiences and internships.

*For further information, contact your guidance counselor or the WMCTC School-to-Work Coordinator at 610-489-7272 Ext. 218.*

## **CAREER PATHWAYS**

### **What are Career Pathways?**

Each Career Pathway is a broad grouping of careers that share similar characteristics and have common employment requirements. A chosen Career Pathway focuses a student's courses toward preparing for a specific career goal area.

Career Pathway planning is an educational approach to course scheduling, which allows students to focus their education toward career development. The five career pathways identified within this Program of Study are clusters of occupations or careers that are based on the national career clusters.

### **Why should I choose courses in a Career Pathway?**

- \* To create career awareness and encourage planning for post-secondary education and opportunities
- \* To provide knowledge that relates your high school education to the world after graduation
- \* To help focus on a career area that matches interests in high school
- \* To help set goals and discover classes necessary to achieve those goals

In a Career Pathway system, students choose a pathway that will prepare them for employment in the cluster that best fits their interests and abilities. Each career pathway represents a group of related occupations and industries represented in today's economy. Counselors will review potential pathways and assist with course selection.

### **Defining the Career Pathways**

#### **Arts and Communications**

Designed to develop students' awareness, interpretation, application, and production of visual, verbal, and written work. Careers in this pathway are linked to the humanities and include performing, visual, and literary arts as well as the communication media. Some occupations include those in creative writing, dance, editing, film, fine arts, graphic arts, journalism, modeling, music, photography, radio, telecommunications, and theater.

#### **Business, Finance and Information Technology**

Designed to prepare students for careers in the world of business, finance, and information services. Careers in this pathway are in the fields of business and marketing. Some occupations include those in accounting, administrative support staff, advertising, computer science, distribution, finance, insurance, international business, management, marketing research, merchandising, personnel, purchasing, real estate, sales and tourism.

#### **Engineering and Industrial Technology**

Designed to develop students' interests, awareness, and application to areas related to technologies necessary for design, development, installation, and maintenance of physical systems. Careers in this pathway are related to engineering, science, technology, construction, manufacturing, and transportation. Some occupations include airline pilots, archeologists, architects, assemblers, carpenters, drafters, engineers of all types, machinists, mechanics, and scientists to name a few.

#### **Human and Family Services**

Designed to develop students' interests, skills, and experiences for employment in careers related to familiar and human needs. Careers in this pathway are linked to family/consumer, economic, political and social systems. Some occupations in this career focus area include those in hospitality and recreation, public and community service, and the broad field of social services. Careers such as those in childcare, cosmetology, economics, education, fire protection, food service, government, history, hotel and restaurant services, law, law enforcement, the military, and recreation may be found in this career pathway.

#### **Health and Natural Resource Sciences**

Designed to develop students' interests in the life, physical and behavioral sciences. In addition, the planning, managing and providing of therapeutic services, diagnostic services, health information and biochemistry research development. Careers in this pathway are part of the health services field. They include occupations in hospital services, medical technology, medicine, nursing, optometry, pharmacy, psychiatry, psychology, therapy and others. Careers in this pathway are related to the environment and natural resources and include occupations in agribusiness, agriculture, animal science, veterinarian, forestry, horticulture, and wildlife management.

## Career Pathway Matrix

Course #	Course Name	Arts & Comm	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human & Family Services	Health & Natural Sciences
ART1300	Introduction to Art	X	X	X		
ART1340	Do-It-Yourself (DIY) Art	X	X	X		
ART1311	Digital Arts I	X	X			
ART2311	Digital Arts II	X	X			
ART2300	Studio Art I	X	X	X		
ART2350	Adv Graphic Design	X	X	X		
ART2380	2-Dimensional Art	X	X	X		
ART2381	3-Dimensional Art	X	X	X		
ART2390	Adv Photography	X	X	X		
ART3300	Studio Art II	X	X	X		
ART3380	Advanced 3-Dimensional Art	X	X	X		
ART4700	AP Studio Art**	X	X	X		
BUS1311	Career Exploration	X	X	X	X	X
BUS1312	Personal Finance	X	X	X	X	X
BUS1330	Principles Of Business	X	X		X	
BUS1340	Intro To Marketing	X	X		X	
BUS2320	Accounting I		X		X	
BUS2350	Entrepreneurship		X		X	
BUS3320	Accounting II		X		X	
CIS1300	Intro to Computer Science	X	X	X		
CIS2300	Computer Programming		X	X		
CIS2700	AP Computer Science Principles**	X	X	X		
CIS3302	Independent Computer Science	X	X			
CIS3310	Cybersecurity*		X	X	X	
CIS3320	Intro to App Design	X	X	X		
CIS3700	AP Computer Science A**		X	X		
ENG1300	Academic English 9	X	X	X	X	X
ENG1500	Honors English 9*	X	X	X	X	X
ENG2300	Academic English 10	X	X	X	X	X
ENG2360	Journalism	X	X		X	
ENG2380	Pottsgrovia	X	X	X	X	X
ENG2460	Advanced Journalism	X	X		X	X
ENG2500	Honors English 10*	X	X	X	X	X
ENG2700	AP Seminar**	X	X	X	X	X
ENG2710	AP Research**	X	X	X	X	X
ENG3300	Academic English 11	X	X	X	X	X
ENG3360	Public Speaking	X	X	X	X	X
ENG3370	Women in Literature	X	X	X	X	X
ENG3570						

Course #	Course Name	Arts & Comm	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human & Family Services	Health & Natural Sciences
ENG3390	Drama	X	X		X	
ENG3500	Honors English 11*	X	X	X	X	X
ENG3700	AP English Language**	X	X	X	X	X
ENG4100	English 12-Technical Writing	X	X	X	X	X
ENG4300	Academic English 12	X	X	X	X	X
ENG4700	AP English Literature**	X	X	X	X	X
FCS1100	Foods IA				X	X
FCS1110	Foods IB				X	X
FCS1320	Fashion Design I	X	X			
FCS2310	Housing/Interior Design	X	X		X	
FCS2320	Fashion Design II	X	X			
FCS2330	Child Development				X	X
FCS3320	Fashion Design III	X	X			
GEN3500	Intro to Education*		X		X	
GEN3510	Working with Children with Special Needs*		X		X	
FCS4320	Fashion Design IV	X	X			
GEN2700	AP Seminar**	X	X	X	X	X
GEN2710	AP Research**	X	X	X	X	X
GEN5201	Navy JROTC I	X	X	X	X	X
GEN5202	Navy JROTC II	X	X	X	X	X
GEN5103	Navy JROTC III	X	X	X	X	X
GEN5104	Navy JROTC IV	X	X	X	X	X
HPE1000 HPE1001	PE 9-10				X	X
HPE2310	Personal Fitness				X	X
HPE2200	Racquet Games				X	X
HPE3000 HPE3001	PE 11-12				X	X
HPE3300	Health				X	X
MTH1520 MTH1320 MTH1910 MTH2910	Algebra I	X	X	X	X	X
MTH2300 MTH2500 MTH4910	Geometry		X	X	X	X
MTH2310 MTH2510	Algebra II		X	X	X	X
MTH3520 MTH3320	Trigonometry		X	X		X
MTH3370	Mathematics for Financial Literacy	X	X	X	X	X

Course #	Course Name	Arts & Comm	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human & Family Services	Health & Natural Sciences
MTH3710	AP Calculus AB**		X	X		X
MTH3730	AP Statistics**		X			
MTH4330	Probability & Statistics		X		X	X
MTH4340	Differential Calculus		X	X		X
MTH4710	AP Calculus BC**		X	X		X
MTH4720	Calculus III*		X	X		X
MTH5000	Decision Making in Sports	X	X	X	X	X
MUS1020	Music Technology	X				
MUS1240	Modern Band	X				
MUS1110 MUS1120	Concert Choir	X				
MUS1210	Concert Band	X				
MUS1320	Orchestra	X				
MUS1400	Guitar	X				
MUS1430	Guitar II	X				
MUS1420	Percussion	X				
MUS2120	Prima Voce	X				
MUS2121	Vox Humana	X				
MUS2123	Chamber Choir	X				
MUS2240	Music Theory	X				
MUS2740	AP Music Theory**	X				
SCI1300	Academic Earth & Space	X	X	X	X	X
SCI1500	Honors Earth & Space*	X	X	X	X	X
SCI2300	Academic Biology	X	X	X	X	X
SCI2500	Honors Biology*			X		X
SCI2530	Genetics Immunology and Marine Bio*			X		X
SCI2730	Forensic Science*			X		X
SCI3100	Chemistry	X	X	X	X	X
SCI3160	Applied Science-Living Things	X	X	X	X	X
SCI3300	Academic Chemistry		X	X	X	X
SCI3310	Academic Physics			X		X
SCI3500	Honors Chemistry*			X		X
SCI3540	Anatomy & Physiology*	X			X	X
SCI3548	Anatomy and Physiology* (ONL)	X			X	X
SCI3710	AP Physics 1**			X		X
SCI3720	AP Physics C-Mechanics**			X		X
SCI3730	AP Biology**			X	X	X
SCI3760	AP Environmental Science**	X	X	X	X	X
SCI4700	AP Chemistry**			X		X
SST1300	Academic Civics 9	X	X	X	X	X

Course #	Course Name	Arts & Comm	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human & Family Services	Health & Natural Sciences
SST1500	Honors Civics 9*	X	X	X	X	X
SST2300	Academic World History	X	X	X	X	X
SST2500	Honors World History*	X	X	X	X	X
SST2310	General Psychology		X		X	
SST2710	AP Psychology**		X		X	
SST2730	AP Government and Politics**		X		X	
SST3300	Academic American History	X	X	X	X	X
SST3340	Modern World Conflict	X	X	X	X	X
SST3500	Honors American History*	X	X	X	X	X
SST3510	History of Western Civilization*		X		X	
SST3700	AP European History**		X		X	
SST3740	AP Human Geography		X		X	X
SST4340	Economics & Sociology	X	X	X	X	X
SST4700	AP US History**		X		X	
SST4740	AP Economics**	X	X	X	X	X
TED1321	Intro to Broadcasting and Video	X	X	X	X	
TED1322	Adv Broadcasting and Video	X	X	X	X	
TED1360	Design Thinking and Prototype			X		X
TED1380	Robotics Engineering			X		X
WLG1300	Spanish I	X	X	X	X	X
WLG1310	French I	X	X	X	X	X
WLG1320	German I	X	X	X	X	X
WLG2300	Spanish II	X	X	X	X	X
WLG2310	French II	X	X	X	X	X
WLG2320	German II	X	X	X	X	X
WLG3300	Spanish III	X	X	X	X	X
WLG3310	French III	X	X	X	X	X
WLG3320	German III	X	X	X	X	X
WLG3500	Honors Spanish III*	X	X	X	X	X
WLG3505	Spanish III (DE)*	X	X	X	X	X
WLG4300	Spanish for the Workplace	X	X	X	X	X
WLG4500	Spanish IV**	X	X	X	X	X
WLG4505	Spanish IV (DE)**	X	X	X	X	X
WLG4510	French IV*	X	X	X	X	X
WLG4520	German IV**	X	X	X	X	X
WLG4700	AP Spanish**	X	X	X	X	X
WLG4705	AP Spanish (DE)**	X	X	X	X	X
WLG4710	AP French**	X	X	X	X	X
WLG4720	AP German**	X	X	X	X	X