HAMBURG AREA HIGH SCHOOL

"TO PREPARE LEARNERS TO LIVE LIVES OF SIGNIFICANCE AND MEANING"





PROGRAM OF STUDIES 2024 – 2025

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HAMBURG AREA SCHOOL DISTRICT 701 WINDSOR STREET HAMBURG, PENNSYLVANIA

BOARD OF SCHOOL DIRECTORS

Thomas DeAngelo Bradley R. Faust Ryan J. Gebely Steven C. Gilbert Todd D. Hummel Tonia S. Krick Laura Lesher Toni L. McFadden Birgit H. White

ADMINISTRATION

Dr. Richard J. Mextorf, Superintendent Dr. Christopher R. Beissel, High School Principal Mrs. Alyssa A. Fink, High School Assistant Principal Mrs. Teresa Freiwald, Chief Learning Officer

The Hamburg Area School District is an equal opportunity educational institution and will not discriminate on the basis of race, color, national origin, sex, age, religion, or disability in its activities, programs or employment practices as required by Title VI, Title IX, Section 504, and ADA.

The School District will provide those related services, aids and accommodations which are needed to afford all students an equal opportunity to participate in and obtain benefits of the school program and co-curricular activities without discrimination and to the maximum extent appropriate to the student's ability.

For information regarding Civil Rights, Grievance Procedures, as well as services, activities and facilities that are accessible to and usable by disabled persons contact Hamburg Area School District Offices, 701 Windsor Street, Hamburg, PA 19526-0401 (610-562-2241).

OUR COMPELLING PURPOSE

A Compelling Purpose is not a slogan, jingle, or feel-good statement. A Compelling Purpose identifies the work that is "so important, we can't not do it." In an age of increasing complexity, we need a Compelling Purpose to remind us, and those we serve, why we exist. Our Compelling Purpose identifies our "true north" and inspires us to contribute to a collective cause that is greater than our individual interests.

The Compelling Purpose at Hamburg Area School District is based on the commonsense notion that there are lots of ways to be smart; that all learners have different talents and different interests, which must be fully developed so that **Every Child, Without Exception**, stands the greatest chance of making a difference in the world.

INTRODUCTION

The Program of Studies is a tool to be used for planning your high school educational experiences. It includes information and guidelines that are used to develop the plan that you will follow to explore your passions and identify your talents. Uniting your talents and passions to prepare you to become an informed productive citizen of the world is the ultimate goal of your high school experience.

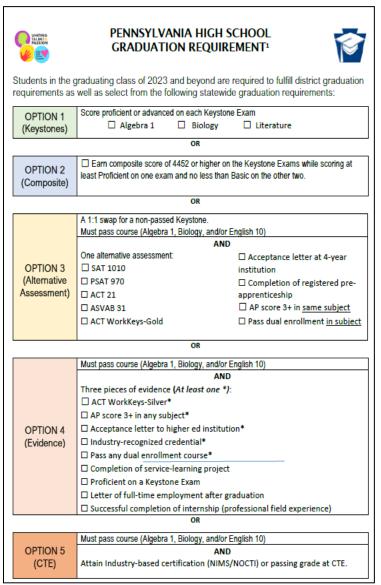
The Program of Studies is organized to reflect the process you will use to identify and prepare for a career while meeting the requirements to earn a diploma from Hamburg Area School District. This is a critical component of becoming an informed productive citizen. Identifying a career pathway that includes various opportunities to use your talents and passions to earn a living is the first step of the process. After the career pathway is identified, students will explore these pathways through the recommended courses that are selected.

A description of these courses is provided with appropriate icons that reflect their inclusion in a specific career pathway. This Program of Studies will answer many of the most common questions that students and parents have. However, it is critical that you seek out a trusted teacher, your school counselor, and of course your parents, to discuss your plans and aspirations. They will be able to assist you in deciding the courses that align with the future educational requirements for the career pathway that you select. Please remember, ultimately, your parent will approve your final choices.

GRADUATION REQUIREMENTS

To graduate from Hamburg Area High School and to participate in the graduation ceremonies, a student must have accumulated a minimum of 24 credits and meet Pennsylvania State Act 158 graduation requirements. These credits must include the following:

Department	Required Course(s)				equired Credits
English	English 9, 10, 11, 12 (or AP Lang & AP Literature)				4
Social Studies	Civics, World Cultures, American Cultures, Global Studies (or Honors-level and AP)				4
Math	2 Algebra & Geometry				3
Science	Integrated Science, Biology & one other OR Honors Biology & two other Science courses				3
STEM	Any Science, Math, or Engineering				2
Fine Arts	Art & Music				0.5
Comp. Tech.	Computer & Career Awareness				0.5
Personal Finance	Personal Finance or Consumer Math				0.5
Wellness	Wellness 9, 10 and two additional				2
Electives					4.50
Needed (for promotion)	9 th grade (5.1)	10 th grade (10.6)	11 th grade (17.6		Grad 24
PA State Graduation Requirement s	As outlined in ACT 158. Students in the class of 2023 and beyond are required to fulfill district graduation requirements as well as complete an option from the statewide graduation requirements.				



CAREER PATHWAYS PROGRAM

The Career Pathways Program is a program of interconnected academic and elective classes revolving around a career or subject theme. It is integrated with experiential learning and close connections between secondary and post-secondary education, training, and apprenticeship. The program is designed to support the development of Career and Life readiness for the learning, so that the individual can successfully enter and advance in a career path (Hans Meeder, *The Power and Promise of Pathways*).

Students will explore their personal interests that relate to each of the four career paths while taking the Computer and Career Awareness Class in ninth grade. Students will then focus their choice of core and elective courses on the educational and training requirements necessary to advance in this Career Pathway upon graduation. Many students will attend the Berks Career and Technology Center. Other students will be provided opportunities to explore various careers within the selected Career Pathway. Field trips, job shadowing, internships, and Professional Field Experience are available as they matriculate through high school along their pathway.

The courses in the Program of Studies are identified as recommended for one of the four Career Pathways: Arts & Communication; Business, Finance, & Informational Technology, Engineering & Industrial Technology; and Human Health & Social Sciences. Some of the courses in the Program of Studies are recommended for more than one Career Pathway. The icon for each course that is recommended for a pathway(s) is included in the course description. Courses without an icon are core courses that all students should consider taking.



Careers in this pathway are related to the visual and performing arts and design, journalism and broadcasting, audio and video technology, fine arts, and world languages.

Recommended elective courses: Video Communications, Publications, All Art classes, World Languages, Music classes, Wood Working, and Wood Technology, AP English classes

Business, Finance, & Information Technology

Careers in this pathway are related to the business environment and include entrepreneurial careers, sales, marketing, computer and information systems, finance, accounting, human resources, economics, and business management.

Recommended elective courses: Business Fundamentals, Accounting, Entrepreneurship, Sports and Entertainment Marketing, Business Law, Microsoft Office Certification

Engineering & Industrial Technology

Careers in this pathway are related to the technologies necessary to design, develop, and implement solutions to the world's problems. Issues addressing the cities and spaces we live in; the environment and natural resources; and securing our information are included in this pathway.

Recommended elective courses: PLTW sequence, Computer Science Essentials, Wood Working, Wood Technology, Home Repair and Maintenance, Advanced Topics in Chemistry, AP Physics

Human Health & Social Sciences

Careers in this pathway are related to the promotion of health and wellness along with the treatment of disease and disorders; economic, political, and social systems; and teaching and training adults and children the information and skills necessary to ensure a productive career and life.

Recommended elective courses: Anatomy and Physiology, Advanced Physical Education, Infectious Disease, Forensics, Psychology, Sociology, other Social Studies Electives, AP Biology, AP Comparative Government, AP US History



Business & Information Technology

Business Management & Entrepreneurship (W) Computer Systems Networking & Security (E) IT Programming (W)

Communications

Advertising Art & Design Technology (W) Video & Media Content Production (W)

Construction

Building Construction Occupations (E) Cabinetry & Wood Technology (E)

Carpentry (E)

Electrical Occupations (B)

Heavy Equipment Operators (E)

Horticulture (E)

HVAC / Refrigeration (E)

Masonry (E)

Painting & Decorating (E)

Plumbing & Heating (E)

Engineering & Manufacturing Technology

Drafting Design Technology (W)

Mechatronics Engineering Technology (W)

Precision/Computerized Machining Technology (W)

Welding Technology (W)

Healthcare

Dental Occupations (E)

Health Occupations (W)

Medical Health Professions (W) (Seniors Only)

Sports Medicine & Rehabilitative Therapy (E)

Services

Cosmetology (B)

Culinary Arts (B)

Early Childhood Education (B)

Protective Services – Homeland Security (E)

Protective Services - Law Enforcement (E)

Service Occupations (E)

Transportation

Auto Collision Repair Technology (B)

Automotive Technology (B)

Diesel Technology (E)

Heavy Equipment Technology (E)

Recreational & Power Equipment Technology (W)

Technical Academy Program

Business Management & Entrepreneurship (W)

Computer Systems Networking & Security (E)

IT Programming (W)

Mechatronics Engineering Technology (W)

Note: (B) indicates the program is offered at both campuses.

(E) indicates the program is offered only at the East Campus in Oley.

(W) indicates the program is offered only at the West Campus in Leesport.

Berks Career & Technology Center consists of two campuses: East Campus | 3307 Friedensburg Road | Oley, PA 19547 | 610-987-6201 West Campus | 1057 County Road | Leesport, PA 19533 | 610-374-4073 Visit us online at www.berkscareer.com



This program is a special agreement between the Hamburg Area School District and Reading Area Community College in which students may receive college credit for specific high school courses. These high school courses have been articulated with the college curriculum and are recognized as courses which meet college standards.

Students enroll simultaneously at Hamburg Area High School and Reading Area Community College. The courses will continue to be taught by high school teachers. Tuition would be paid by student's family to RACC in order to receive college credit. These courses appear on a RACC transcript and on the Hamburg Area High School transcript as credits earned.

The following courses are included in the Dual Enrollment Program: AP Calculus, AP Literature and Composition, AP Language and Composition, AP Environmental Science, AP Biology, Advanced Topics in Chemistry, Infectious Diseases, AP US History, Spanish III, Spanish IV, Advanced Drawing, and Advanced Painting. Students are also welcome to take courses at local colleges and universities while a student at Hamburg Area High School. Each 3-4 credit core course successfully completed at a college or university will count as one credit earned at Hamburg Area High School. These courses will not be included in the calculation of the Grade Point Average. Students must get approval from the high school principal before credit is awarded.



Hamburg Area School District offers virtual (online) learning options for all students. Each course is designed to provide a challenging, rigorous curriculum for students who exemplify the characteristics of successful digital learners. Prospective virtual students must demonstrate the following qualities for success:

- PREREQUISITES A minimum 80% in current year's course and B GPA (80% or higher)
- MOTIVATED The ability to ignore all the outside distractions and get your work done.
- RESPONSIBLE You must be able to meet deadlines.
- PROBLEM SOLVER Ability to figure things out on your own or look for other resources.
- INDEPENDENT LEARNER -You can take notes, think critically, and study on your own.
- ASK QUESTIONS You seek help when you don't understand or need explanations.
- STUDY ENVIRONMENT Your home environment is setup so it can also be your classroom.
- PARENT SUPPORT Parents need to closely monitor their child's progress and assist at times.

Families work closely with the school counselor and Virtual Learning Facilitator to customize a program and insure a successful experience. Students can choose to receive all instruction in an online format or create a blended schedule with traditional and online courses. Parents receive weekly progress reports for their students. Student progress and log-in/attendance is closely monitored by the Virtual Learning Facilitator.

Online courses may be considered due to a schedule conflict or when a student would like a unique course not offered in the High School Program of Studies. Online courses may be taken for initial credit. See your school counselor to discuss advanced placement and dual enrollment options.

The Hamburg Area School District utilizes several online curriculum providers to offer a variety of courses including electives, honors, AP, and world language. Contact the Virtual Learning Facilitator for available virtual courses lists and catalogs.

All online courses follow a semester or full-year academic calendar. Enrollments are conducted prior to the start of each school year and prior to the start of the second semester in January. Any student interested in online learning opportunities should first contact his/her school counselor to begin the enrollment process.

The enrollment window for HAVA closes after the first two weeks of each new semester.

HASD Virtual Learning students retain the following benefits:

- Attendance at school functions including dances, proms, clubs, field trips, assemblies, and other school-sponsored activities.
- Participation in extracurricular activities such as music, drama, and athletics.
- Receipt of a high school diploma from the Hamburg Area School District upon meeting all requirements.
- Access to school-wide services including counseling, career guidance, support programs, family and social services, and student assistance.

MEDICAL HEALTH PROFESSIONS PROGRAM

Berks Career and Technology Center, Penn State Berks, and The Reading Hospital & Medical Center collaborate to offer an exciting Medical Health Professions Program for high school seniors. The program combines high level academics with the opportunity to shadow health care professionals and earn college credits.

The program exposes high school seniors to various healthcare professions so they can make more informed decisions about their future education. Students will be enrolled in both Penn State Berks and BCTC for one year, taking Chemistry and Physiology courses at Penn State Berks two days per week and attending health classes and shadowing healthcare providers at The Reading Hospital three days per week. Students will be able to earn up to eight transcript college credits through the program. BCTC is able to offer these courses tuition free to students through a state grant.

BCTC provides education in the areas of healthcare and healthcare professions. The Reading Hospital provides job shadowing opportunities in which students will gain an understanding of the healthcare system by observing professionals in a real-world environment. Admission to the program is competitive and students must meet strict admission guidelines.

PROFESSIONAL FIELD EXPERIENCE

Connecting classroom learning with career opportunities is an important component of the high school experience. Students wishing to gain experience in a particular career field may do so through the Professional Field Experience or PFE. Our PFE program provides students with opportunities to explore careers that match their personal interests and skills while gaining real-world experience and mentorship in an occupational field. These hands-on experiences allow students to be better prepared for their future and give them the flexibility to experiment with different occupations before they invest their time and money into further training or education after high school.

INDEPENDENT STUDY ELECTIVES

The Independent Study Program is designed for students who have demonstrated a high degree of motivation and have the ability to work independently. To enroll in an independent study program, a student must be in 11th or 12th grade, have the approval of the teacher, the School Counselor, and the High School Principal. Applications are available in the High School Counseling Office. Teachers are required to develop a full and complete description of each independent study program.

COLLEGE-BOUND STUDENT-ATHLETES (NCAA)

NC44

College-bound student-athletes preparing to enroll in a Division I or Division II school need to take courses approved by the NCAA to ensure they have met amateurism standards and are academically prepared for college coursework. Starting as early as ninth grade, NCAA eligibility begins for students. There are both grade point average requirements as well as completion of NCAA approved courses Students must also register with the NCAA no later than the end of junior year

Approved courses are listed with the NCAA symbol and are typically core classes at the PS-level or higher. For more information and to register with the NCAA Eligibility Center visit www.eligibilitycenter.org.

EARLY ADMISSION TO COLLEGE

Upon approval of the High School Principal and Board of School Directors, students may be accepted to and attend college during their senior year (12th grade). After successful completion of the freshman year in college, they will be eligible for a high school diploma and may participate in commencement exercises.

SCHEDULING CLASSES

Students will begin the course request process in marking period 3 for the following academic school year. The requests must meet the minimum standards for the grade level. Students may request electives provided they have met the prerequisites and/or have obtained approval as required. The requested courses should be discussed with teachers, counselors, and parents to be sure the educational and vocational needs of the students have been met.

A complete description of each available course shall be found in the Program of Studies. Additionally, there will be ample time for the students and their parents to discuss selections with teachers and School Counselors.

Students are expected to register for and complete a minimum of 6.5 credits per year. Students are eligible to register and complete up to 8 credits per year. Parents are responsible for payment of all courses exceeding 8 credits in a school year.

SCHEDULE CHANGES

Once the courses and other learning opportunities have been selected and approved by the parents, **no changes will be made unless approved by a principal.** Courses are offered based on student requests. This often results in courses not being offered due to another course with greater interest. Course selection changes often result in the denial of opportunities for some students and the over enrollment in other courses.

Withdrawals from a course requires a principal's approval. The student must provide proof of extenuating circumstances that they cannot complete the course and parental approval before consideration by a principal. Any course that is dropped after the school year begins will be noted on the report card and becomes a permanent part of the student's transcript. A mark of WF (withdraw-failing) will be recorded.

MINIMUM COURSE ENROLLMENT

In accordance with the provisions of Section 1604 of the Public-School Code, the School District reserves the right to cancel a course offering with insufficient enrollment.



HAMBURG AREA HIGH SCHOOL Schedule Change Request Form

This form must be completed in order to have your request reviewed for a schedule change once school starts. A WF (withdraw/fail) will be listed for this course on my permanent transcript.

Step 1: To be completed by the Stude	nt	
Name:	Grade:	Date of Request
Requested course to DROP: I understand that a WF (withdraw/f	ail) will be assigned to	o this gaurea
I understand that a WF (withdraw/i	an) win be assigned to	o this course.
Requested course to ADD:		
Please use the back of this form to share	re your reasons for requ	uesting this change.
Step 2: To be completed by the Parent I understand that a WF (withdraw/f		o this course.
Date of contact with teacher regarding	student's performance	and placement. (E-mail, phone)
After conversations with my student's	teacher, I support this	request.
Step 3: To be completed by the Teach	ier	Parent Signature
Grade to date:	Number of a	absences from class:
Rate on the following scale, 1(low) to	5(high)	
Completed assignments		elp outside of class
Classroom participation Classroom readiness	Classroom a Proper place	attitude ement
Please use the back of this form to share	re any additional inforr	nation.
Step 4: Return this completed form to	your counselor for add	ministrative review and decision.
ApprovedNot Approved		
	Administ	trator Signature
Date Comments:		

GRADING SYSTEM

A student's grade is meant to represent the percentage of material mastered at a given point in time. It is recognized that our school system is also responsible to provide opportunities for students to grow into responsible citizens. The grading system presented below is based on a percentage grade where at least 80% of the grade accounts for a student's level of mastery and no more than 20% of the grade represents work ethic, participation, attendance, or other aspects of being a responsible citizen. Quarterly reports are available every nine weeks and include a final grade in June. Parents and guardians can see their child's progress on a daily basis by logging in to www.hasdhawks.org and clicking on the Sapphire Community Portal.

Parents and teachers are encouraged to establish and maintain communication about students throughout the year. Teacher e-mail addresses can be found on the Hamburg Area School District website: www.hasdhawks.org Additionally, parent conferences scheduled throughout the year provide a special occasion to discuss student progress.

REGULAR HONOR ROLL

High School students who receive grades of 90% or above, no incompletes or grades below 60%, are eligible for the Regular Honor Roll.

HIGH HONOR ROLL

High School students who receive grades of 98% or above, no incompletes or grades below 60%, are eligible for the High Honor Roll.

GRADES ARE VALUED AS FOLLOWS:

<u>RATING</u>	PERCENTAGE GRADE	OTHER GRADES
Excellent Work	90 – 100	I – Incomplete
Good Work	80 - 89	S – Satisfactory
Satisfactory Achievement	70 – 79	U – Unsatisfactory
Minimally Proficient	60 - 69	P – Passing
Deficient, Not Passing	below 60	F – Failing
_		M - Medical

The final grade for a course will be determined by averaging the quarters in which the course was in session.

GRADE POINT AVERAGE AND CLASS RANK

Class rank and GPA are calculated on all subjects that grant school credit. For the purpose of determining class rank, criteria for weighting classes provided below.

Expectations of Students for Weighted Courses - 4-Tiered System

Criteria	(20% Weighting) AP	(15% Weighting) Honors	(10% Weighting) Post-Secondary	(No Weighting) Standards Based
Expected Work Outside of Class	Extensive - most nights/weekends	Frequent - most nights/some weekends	Less Frequent - some nights/some weekends	Infrequent - given class time for most assignments
Instructional Pace	College level - fastest pace, numerous topics in great depth	Fast pace, numerous topics, in-depth	Moderate Pace, numerous topics, in-depth	Slower Pace, topics covered at level of standards
Level of Reading/Writing	College level reading and writing with high expectations for student centered analysis/synthesis of information	Frequent reading assignments involving student centered analysis and rigorous writing assignments	Occasional reading assignments involving teacher lead analysis and critical writing assignments	Shorter reading and writing pieces, teacher lead analysis, scaffolding provided for writing assignments
Assessment	Few, extensive amount of content, very high stakes, mostly high depth of knowledge questions, no requizzes	Less Frequent, large amount of content, mostly high depth of knowledge questions, requizzes rare	Less frequent, moderate amount of content, some higher depth of knowledge questions, may allow requizzes	Frequent, smaller amount of content, lower depth of knowledge questions, may allow requizzes
Time in Class for Preview/Review	Rare	Infrequent	Occasionally	Most likely daily
Pre-course assignments/ prerequisites	Most likely required	More likely required	May be required	Not likely to be required
Amount of Self- Directed Learning	Extensive	Frequent	Occasional	Infrequent

MATRICULATION TO THE NEXT GRADE

The following are the minimum of credits needed to attain the status of freshmen, sophomore, junior, or senior:

Freshman 0-5. Sophomore 5.1 - 10.5Junior 10.6 - 17.5Senior 17.6 and above (24 credits are needed for graduation)

Students may take courses on the next level but will not attain that status until the minimum number of credits is earned.

SUMMER LEARNING ACADEMY/CREDIT RECOVERY

Students who fail to meet the requirements for graduation from Hamburg Area High School may not participate in the class commencement ceremony. They may qualify for the diploma issued later under the following conditions:

- 1. Complete the required make-up work in Summer Learning Academy, approved independent study, or approved credit recovery courses during the summer immediately following the senior year. To qualify, a student must have completed a similar course during the school year and achieved a minimum grade of 50%. All make-up work must receive pre-approval from the High School Principal.
- 2. Return to school the following school year to make-up necessary deficiencies.

Credit recovery is also available to all other students, earning a 50% or higher, who wish to make up failed courses. Credit recovery options are available during the summer and the school year. Parents are responsible for the payment of credit recovery course or any other course that exceeds 8 credits in a school year.

COURSE DESCRIPTIONS

The following pages of the **Program of Studies** contain brief descriptions of all high school courses. As you read the descriptions and begin to make selections, please keep the following in mind:

- . All courses are gender neutral.
- . Courses marked as one credit meet every day for the full year; those marked 0.5 meet every other day for the full year or every day for 1 semester. In other instances, remember that one-day per cycle (for a full year) equals 0.2 credits.
- . The availability of elective courses depends upon student enrollment. A course may be canceled if an insufficient number of students enroll.
- . Subject areas are arranged alphabetically within this section. The lower grade-level courses are usually listed first within each subject area.
- . The letters "PPC" mean the number of periods per cycle that the course meets. Most courses meet every day, hence 6 PPC.
- . Students should select courses at the appropriate level of difficulty. Discussions with teachers and school counselors can help students choose the most appropriate courses.
- Ordinarily, all courses are open to students who have taken the prerequisites. However, some courses are specifically designed for students with particular abilities and thus have limited enrollment. Some important definitions that are used in this regard are:

Honors (H) – A higher level or more demanding course offered to high ability students in place of the regular course offering.

AP – These courses are developed to prepare students for the Advanced Placement examinations.

Post-Secondary (PS) – Content taught in courses designated as post-Secondary expand upon the *Pennsylvania Core Standards* that are published by the Pennsylvania Department of Education. The content of these courses also includes the required material for a student who plans on attending any post-secondary institution of learning after graduating from Hamburg Area High School.

Permission – A student may enroll in these courses only with permission of the principal. Teacher and counselor recommendations are considered heavily in these decisions.

Prerequisite – A prerequisite is a requirement which the student must satisfy before taking a particular course. In some instances, concurrent enrollment or permission are acceptable alternatives.

ART

The art program is designed for students interested in art as a career as well as an avocation. The program gives students an opportunity to express themselves through the use of a variety of media and techniques. The program helps students develop sensitivity towards the elements and principles of art and an appreciation for forms of art, both past and present.



8020 CERAMICS AND 3D DESIGN

PPC: 6
Grades 9-12
FULL YEAR
CREDIT: 1.0

In this course, students will be introduced to 3D Art. Students will be introduced to clay materials to learn structural techniques of hand-building with clay, jewelry making, and sculpture. Materials may include clay, glass, metal, or mixed media. Studio safety is emphasized. (Satisfies the fine arts requirements)



8120 ADVANCED CERAMICS AND 3D DESIGN

PPC: 6
Grades 10-12
Prerequisite: Ceramics and 3D Design

CREDIT: 1.0

Weighting: 10%

In this course, students are encouraged to explore personal creativity with 3D materials in depth. Materials may include clay, glass, metal, or mixed media. Emphasis is placed on using a variety of materials and techniques to design and construct 3D objects. (Satisfies the fine arts requirements)



PPC: 6 FULL YEAR CREDIT: 1.0

This course is designed to introduce students to the fundamentals of drawing. Students will learn to apply traditional and digital drawing techniques unique to the drawing process. Possible materials include pencil, charcoal, pastel, colored pencil, or ink. Students may also explore drawing applications for digital art. Example subject matter include still life, portraiture, landscape, and perspective. Student artwork may also be represented on a large scale. (Satisfies the fine arts requirements)



8110 ADVANCED DRAWING

RACC

PPC: 6 **Grades 10-12 FULL YEAR** Prerequisite: Drawing Weighting: 20% CREDIT: 1.0

In this course, students will develop a collection of work through an in-depth exploration of traditional or digital drawing topics, materials, and techniques. Students will further develop their personal voice and skills in a range of approaches to drawing. This course may be elected for dual enrollment through RACC.



8030 **PAINTING**

Grades 9-12

PPC: 6 **FULL YEAR** CREDIT: 1.0

This course provides an overview of color theory and design. Students will learn the basic skills and techniques that are applied in various styles of representational and nonrepresentational painting. Materials may include watercolor, acrylic, or oil paint. Students may also explore painting applications for digital art. Subject matter may include still life, landscape, portrait, or abstract work. Student artwork may also be on a large scale. (Satisfies the fine arts requirements)



8130 ADVANCED PAINTING



Grades 10-12

PPC: 6 Prerequisite: Painting **FULL YEAR** Weighting: 20% CREDIT: 1.0

In this course, students will develop a collection of work through an in-depth exploration of traditional or digital painting topics, materials, and techniques. Students will further develop their personal voice and skills in a range of approaches to painting. This course may be elected for dual enrollment through RACC.



STUDIO ART 8240

PPC: 6 Grades 10-12 **FULL YEAR** Prerequisite: Previous Art Class or Teacher Approval CREDIT: 1.0

Weighting: 10%

This course is designed to introduce students to a range of art media, techniques, and processes. Emphasis is on exploring various art applications for portfolio preparation. This course is recommended for serious art students who want to go on to art school. Students have the opportunity to work on special projects. (Satisfies the fine arts requirements)

BUSINESS COMPUTER AND INFORMATION TECHNOLOGY

The major goal of Business Computer and Information Technology courses is to prepare young people for success in their everyday contacts with the academic and working worlds as students, consumers, and employees.

The courses prepare academic students for success on the college level. Students will have the opportunity to use the most popular software available in college classrooms and business offices today. Word processing and spreadsheet skills are the essential foundation for preparing college papers and reports. The wide variety of computer courses available allows students to select courses that give an overview of several software components or ones that specialize.

By enrolling in Accounting, students who anticipate majoring in accounting or finance areas have the opportunity to acquire a background in those areas prior to college enrollment.

Students who want to enter directly into business careers can acquire the skills necessary through careful selection of courses in the Business Computer and Information Technology area.



6020 BUSINESS FUNDAMENTALS

PPC: 6
Grades 9-12
Weighting: 10%
ONE SEMESTER
CREDIT: 0.5

Business Fundamentals is intended to provide students with an overall knowledge of general business principles as well as immerse them in today's complex business and economic environment. The course will introduce various aspects of business including basic marketing concepts, corporate finance, management, traditional economics, business law, proprietorship, and ethics.



6110 BUSINESS LAW

PPC: 6
Grades 10-12
Weighting: 10%
ONE SEMESTER
CREDIT: 0.5

Business Law will cover the student's relationship to law as a minor, as a consumer, and as a citizen in our society. Students will look at the basic criminal and civil wrongs people commit, the law enforcement, and the court systems involved. The many areas of contract law will be introduced as well as sales agreements and personal agreements.

6220 PERSONAL FINANCE

ONE SEMESTER Grades 10-12

CREDIT: 0.5

PPC: 6

This course will teach the student how to be a wise and informed consumer. Topics to be covered include money management, banking services, savings plans, credit, leasing and buying cars, automobile, home, medical, and life insurance plans, and consumer protection. Students will study consumer terminology, concepts, and mathematical operations. Calculators and simulations are used frequently as this course stresses problem solving and real-life scenarios. Students must pass this course in order to graduate.



6130 **ENTREPRENEURSHIP**

PPC: 6

Grades 10-12 ONE SEMESTER Prerequisite: Must Pass Business Fundamentals CREDIT: 0.5

Weighting: 10%

Are you interested in being your own boss, owning your own business, or creating a product to sell? Students will examine the major steps involved in starting a new business, including the marketing, financing, budgeting, managing, purchasing, staffing, and legal aspects. Students will be provided with real-world examples of entrepreneurs who have changed the business world. This course will be hands on, students will work with classmates for activities, and majority of work will be self-directed by students.



ACCOUNTING 1 6270

Grades 10-12

PPC: 6 **FULL YEAR** CREDIT: 1.0

Weighting: 15% Accounting teaches the basic principles of managing money. Students learn how to chart assets, liabilities, owner equity, revenue, and expenses. Although personal financial accounting is discussed, the major emphasis of the course is in its role in the business world-service, merchandizing, and corporate accounting. The use of spreadsheets and other computer software is included. This course may be used to satisfy the graduation requirement in mathematics.

6010 COMPUTER AND CAREER AWARENESS

Grades 9 ONE SEMESTER

CREDIT: 0.5

PPC: 3

Computer and Career Awareness will introduce students to potential careers in varies career clusters. Students will complete self-assessments regarding their interests, aptitudes, and abilities and research their potential careers. Following an initial review of keyboarding skills, students will be introduced to Microsoft 365 Word, Excel, and PowerPoint. Students will use the Microsoft 365 to complete projects that integrate the information learned about the various career clusters. This course is required by all freshmen. (Satisfies the computer technology requirements)



MICROSOFT OFFICE CERTIFICATION 6285

PPC: 6 Grades 10-12 **FULL YEAR** Prerequisite: Must pass Computer & Career Awareness CREDIT: 1.0

Weighting: 15%

Microsoft Office Certification will provide students to proficiently use basic and advanced applications of Microsoft Word, PowerPoint, and Excel. This course will be a preparation for Microsoft Office* Specialist (MOS) certification for Microsoft Office upon completion. The purpose of this course is to prepare students to qualify for entry-level positions in the business/office sector and prepare students for college courses in a computer related field. (Satisfies the computer technology requirements)



6030 SPORTS AND ENTERTAINMENT MARKETING

PPC: 6 Grades 9-12 ONE SEMESTER Weighting: 10% CREDIT: 0.5

Students will explore the intriguing world of sports and entertainment from a marketing perspective. Students will gain knowledge about marketing in areas such as college, amateur, professional sports, and entertainment events. In addition, this course will discuss topics such as the marketing mix, endorsements, public relations issues, entertainment profits, marketing plans, recreation marketing, and careers in sports marketing. Learn all the "behind the scenes" action of advertising to the sports and entertainment arenas.

ADVANCED LEARNING EXPERIENCES

6870 PROFESSIONAL FIELD EXPERIENCE (PFE)

PPC: 6

Grade: *12 SEMESTER/FULL YEAR

Weighting: 10% CREDIT: Varies

Connecting classroom learning with career opportunities is an important component of the high school experience. Students wishing to gain experience in a particular career field may do so through the Professional Field Experience or PFE. Our PFE program provides students with opportunities to explore careers that match their personal interests and skills while gaining real-world experience and mentorship in an occupational field. These hands-on experiences allow students to be better prepared for their future and give them the flexibility to experiment with different occupations before they invest their time and money into further training or education after high school.

PFE is open to junior and senior students, may be paid or unpaid, and can be customized to meet a student's schedule and intended outcomes. The PFE may also include training or a post-secondary component. PFE students are released from school for 1 or more periods a day to attend their PFE at a business, non-profit organization, school, or other workplace setting. Students are expected to attend their PFE as assigned, have their own transportation to and from the PFE, dress appropriately for their worksite, and adhere to all workplace policies and procedures. In addition, students must set goals for their PFE and complete a public display of learning, such as a portfolio or presentation at the culmination of their PFE.

*Special permission may be granted to 11th graders to participate in a PFE on a case by case basis.

Students are responsible for completing all required paperwork by the end of the school year prior to starting their PFE and are expected to work collaboratively with the Career Specialist to identify potential PFE locations.

6840 WORK EXPERIENCE

Grade 12 **FULL YEAR**

CREDIT: 3.0

PPC: 6

Senior students enrolled in the Work Experience Program combine partial days of academic course work along with at least 15 hours working on-the-job Monday through Friday. The Work Experience program is assessed as pass or fail and is awarded 3 credits.

Work Experience students begin the program by meeting with the Work Experience Program Coordinator in May of their junior year and obtaining the Training Agreement and Program Policies forms. Work Experience students are required to obtain a part time job during the summer months prior to their senior year. Work Experience students and their employers complete the Training Agreement which outlines their responsibilities and expectations.

Students are required to obtain a work permit if under the age of 18. Students are required to electronically report their hours worked log plus their paystub to the Work Experience Program Coordinator every 2 weeks. Work Experience students must meet the required work time and reporting in order to pass each quarter and receive credit for the program.

DRIVER EDUCATION

Driver Education theory instruction is available online through the Berks County Intermediate Unit or through the PA Department of Education's online Driver's Education program. Students who successfully complete the 30-hour course and submit the "Certificate of Completion" to the School Counseling Department will receive .25 credits towards graduation. Students may register for the BCIU course at www.BCIU.KeysToDriving.com.

Behind - the - Wheel instruction is also available through the Berks County Intermediate *Unit. Students who successfully complete 6 hours of driving experience and submit the "Certificate*" of Driver Training" to the School Counseling Department will receive .10 credits towards graduation. Students may register directly with the BCIU at www.berksiu.org/drivertraining.

ELECTIVES

9990 SERVICE-LEARNING ELECTIVE

Grades: 9-12 CREDIT: 0.25

The purpose of the community service-learning elective is to provide students with an opportunity outside the classroom to investigate and learn about the Hamburg Area Community's history, government, and restoration while instilling an appreciation for the value and sense of pride associated with community service.

ENGLISH LANGUAGE ARTS



- Indicates that a Keystone Exam will be administered at the end of the course

Students are required to complete four years of English to be eligible for graduation and must meet the requirements of each grade-level English course in order to qualify for promotion. Each course develops and reinforces aspects of language arts including literature, writing, research, public speaking, grammar, and vocabulary.

Students who demonstrate competency and interest in this content and meet required prerequisites may elect to participate in the work of the advanced courses. The purpose of the advanced classes is to build on grade level skills and content to provide English students with a more challenging, rigorous program.

3025 ENGLISH 9

PPC: 6
Grade 9
FULL YEAR

CREDIT: 1.0

Designed for freshman, this introduction to literature that focuses on analyzing literature from four main areas: fiction, non-fiction, drama, and poetry; students in the freshman course hone close reading skills through the reading of these various genres. Additionally, this course is designed to help students transition to an analytical style of writing that requires the use of textual evidence and, sometimes, outside sources. A secondary goal of this course is to prepare students for the Keystone exam that will be taken in 10th grade.

3050 ENGLISH 9 (PS)

NC44

PPC: 6
Grade 9
FULL YEAR
Prerequisite: 80% or higher in 8th grade English
CREDIT: 1.0

Weighting: 10%

Designed for freshman with post-secondary education in mind and an increased emphasis on academic rigor, this freshman course is an introduction to literature that focuses on analyzing literature from four main areas: fiction, non-fiction, drama, and poetry; students in the freshman course hone close reading skills through the reading of these various genres. Additionally, this course is designed to help students transition to a more sophisticated analytical style of writing that requires the use of textual evidence and, sometimes, outside sources. A secondary goal is to prepare students for the Keystone exam.

3075 HONORS ENGLISH 9

PPC: 6
FULL YEAR

Prerequisite: Teacher permission, a writing assessment, and CREDIT: 1.0

an 8th grade English score of 94% or higher, PVASS Projections

Weighting: 15%

Because this is a course that provides students with skills necessary for success in AP English classes, students are expected to arrive with a command of close reading, writing, speaking, and vocabulary skills. Students will further their mastery of the writing process, sharpen communication skills, and read and analyze challenging literature. A secondary goal of this course is to prepare students for the Keystone exams and initial preparation for the AP English courses. Summer reading assignments may be required.

3125 ENGLISH 10

Grade 10

PPC: 6 FULL YEAR CREDIT: 1.0

This Keystone course focuses on world literature and develops critical thinking, reading and writing skills. With class supports, students analyze fiction and nonfiction, express their ideas in discussions and in formal and informal writing assignments. Writing instruction introduces research skills, self-editing techniques and emphasizes the overall writing process in order to develop more confident and competent writers. This course is designed to prepare students for the Keystone Literature exam.

3150 ENGLISH 10 (PS)

FPC: 6
Grade 10
FULL YEAR
Prerequisite: 80% or higher in 9th grade English
CREDIT: 1.0

Weighting: 10%

This Keystone course focuses on world literature and develops critical thinking, reading and writing skills. Students critically read fiction and nonfiction, develop their own interpretation of those texts, and express ideas in discussions as well as in formal and informal writing assignments. Writing instruction introduces research skills, self-editing techniques and emphasizes the overall writing process in order to develop more confident and competent writers. The course is academically rigorous to prepare students for future study as well as for the Keystone exam. Summer reading assignments may be required.

HONORS ENGLISH 10 3175

PPC: 6 **FULL YEAR** Grade 10 NC44 CREDIT: 1.0

Prerequisite: Teacher permission, a writing sample, and a

90% or higher in Honors English 9

Weighting: 15%

This Keystone course requires students to read and analyze world literature and to communicate ideas clearly. Students read complex works of fiction and nonfiction and focus on the analysis of those texts. Writing instruction emphasizes sophisticated use of source material to support the student's interpretations. Assignments are designed to refine critical reading, writing, and thinking in order to prepare for the Keystone exam as well as higher level academic study, including APlevel courses. Summer reading assignments are required.

3225 **ENGLISH 11**

PPC: 6 Grade 11 **FULL YEAR** CREDIT: 1.0

Juniors in this Pennsylvania Core Standards based course will continue to focus on vocabulary development, oral communication, and composition while strengthening their reading comprehension, literary analysis, and research skills. Students will study a variety of American Literature that includes fiction and non-fiction texts.

ENGLISH 11 (PS) 3250

PPC: 6 NCA4 **FULL YEAR** Grade 11 Prerequisite: 80% or higher in 10th grade English CREDIT: 1.0

Weighting: 10%

Juniors in this Pennsylvania Core Standards Based course will continue to strengthen their reading, comprehension, literary analysis, writing, research, speaking, and vocabulary skills. Students will be exposed to a variety of American Literature that includes fiction and non-fiction texts. Emphasis is placed on reading critically, analyzing multiple texts, and writing critically. This course also includes instruction and practice for the Scholastic Aptitude Test. Summer reading assignments may be required.

3290 AP ENGLISH LANGUAGE AND COMPOSITION

Grades 11-12 **FULL YEAR** CREDIT: 1.0 NCAA

PPC: 6

PPC: 6

Prerequisite: Teacher permission, a writing sample, and a

90% or higher in Honors English 10

Weighting: 20%

The AP English Language and Composition course focuses on rhetorical analysis of nonfiction text and the development and revision of well-reasoned, evidence-centered analytic and argumentative writing. This course requires students to become skilled readers of prose written in a variety of rhetorical contexts and skilled writers who compose for a variety of purposes. Course writings include critical essays, in-class timed essays, personal pieces, journals, as well as several Summer reading assignments are required. This course meets the research papers. requirements of the College Board AP Language and Composition course; students can earn credit by taking the AP Language and Composition exam or by dually enrolling for credits at RACC.

3325 **ENGLISH 12**

PPC: 6 Grade 12 **FULL YEAR** CREDIT 1.0

In English 12, practical written and oral communication are stressed. This course will focus on the study of British Literature. The major focal points of this course are developing a point of view about the literature being studied, studying grammar in context, and writing for both authentic and academic settings.

ENGLISH 12 (PS) 3350

NC44

Grade 12 **FULL YEAR** Prerequisite: 80% or higher in 11th grade English CREDIT: 1.0

Weighting: 10%

This course is designed for those seniors who plan to continue their formal education after high school. Those who enjoy and excel at more challenging English course work even though they do not plan to attend university, trade or technical school should also consider English 12 (PS). This course is designed to foster the study and analysis, both verbal and written, of British Literature. Developing a point of view about the literature being studied, studying grammar in context, and writing for both authentic and academic settings will be the major focal points of this course. Summer reading assignments may be required.

3390 AP ENGLISH LITERATURE AND COMPOSITION

PPC: 6

FULL YEAR

CREDIT: 1.0

Grades 11-12
Prerequisite: Teacher Permission, writing sample, and

90% or higher in AP Language and Composition

Weighting: 20%

Students in this college level course will be expected to demonstrate a keen analysis of literature and strong analytical writing skills. Students will refine interpretive reading skills through the close study of various literary genres in British, American, and World literature. In addition to the reading, students will write regularly, including critical essays, in-class timed essays, journals, as well as two research papers. Students will also study intense vocabulary, grammar, and punctuation as it applies to writing. This course is designed to prepare students for the AP English Literature and Composition exam and to fulfill the RACC dual enrollment requirements. Extensive summer reading requirements are required.



3510 PUBLICATIONS

PPC: 6
Grades 9-12
Weighting: 10%
FULL YEAR
CREDIT: 1.0

This elective is for the self-motivated student who is thinking of a career in the field of communications. While refining writing and grammar skills, the students work together to produce the school yearbook, newspaper, programs for school events, and articles for *The Hamburg Item*. Using various technologies including scanners and graphic design software, (the Adobe suite focusing on InDesign and PhotoShop), the students are involved in all stages of production: brainstorming ideas, gathering information, writing articles, taking photographs, proofreading, designing layouts, meeting deadlines, and participating in team projects. Students also complete independent study projects on topics such as: the writing process, copyright law, ethics, photography, graphic design, and journalistic style. (Satisfies the computer technology or fine arts requirements)

3520 VIDEO COMMUNICATION

PPC: 6
Grades 9-12
FULL YEAR
CREDIT: 1.0

Students in this elective class will learn the skills of pre-production, production, and post-production filming and editing while heightening their awareness of the power of video as a medium of communication. Students will learn the skills to operate video, audio, and light equipment and industry standard Adobe Premiere Pro editing software. Working individually and in teams, students will create videos for the school, the community, and themselves, practicing the roles of planning, scriptwriting, filming, editing, and directing. Students having already completed the Video Communication class may take it again for advanced work. (This course satisfies the computer technology or fine arts elective requirement.)

INDUSTRIAL TECHNOLOGY AND ENGINEERING

The industrial technology and engineering curriculum present courses that develop higher order thinking skills and problem solving by practical applications. Students are welcome to take individual courses to explore their interest in the field of industrial technology and engineering or participate in the Engineering Design Academy.

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7055 INTRODUCTION TO ENGINEERING DESIGN (I.E.D.)

PPC: 6
Grades 9-12
FULL YEAR
CREDIT: 1.0

Students in this class will be introduced to the 3-D modeling design process using the professional design program, AutoDesk Fusion 360. Students will also be introduced to 3D printing, rapid prototyping, precision manufacturing, and reverse engineering. This course will use hands-on activities and project-based, problem-based assignments. This course will not only benefit students interested in engineering, but also any students pursuing a career in construction, design, and manufacturing, and any of the many technology related fields in our society.

(Satisfies the STEM credit and fine arts requirements)



7160 PRINCIPLES OF ENGINEERING (P.O.E.)

PPC: 6
Grades 10-12
Weighting: 10%
FULL YEAR
CREDIT: 1.0

This is one of the foundation courses of the Project Lead the Way pre-engineering program. This course provides an overview of engineering and engineering technologies. Students will develop problem-solving skills by tackling real-world engineering problems. This course provides a hands-on approach to science, math, and technology. Through theory and practical hands-on experience, students will become familiar with the multifaceted career of engineering. This course will explore the following topics: Design Process, Thermodynamics, Projectile Motion, Programming and Machine Control, Architecture and Building Design, and Material Science and Processing.



COMPUTER SCIENCE ESSENTIALS

PPC: 6 Grades 9-12 **FULL YEAR** Weighting: 10% CREDIT: 1.0

Computer Science Essentials is an engaging and comprehensive exploration into the foundational principles of computer science. This course offers a dynamic learning journey, starting with block-based programming and seamlessly progressing towards professional languages like Python. Students will delve into the world of app development for Android and iOS platforms, empowering them to create their own innovative applications. Additionally, the course encompasses hands-on experiences in robotics programming, game development, and the creation of programs that interface with the physical world using versatile hardware like Raspberry Pi, Arduino, and more. By fostering creativity and problem-solving skills, students will acquire a robust understanding of computer science concepts while actively applying them to real-world projects.





7010 WOOD TECHNOLOGY

PPC: 6 Grades 9-12 **FULL YEAR** CREDIT: 1.0

This course is designed for the individual interested in the fundamentals of materials, tools, machines, and processes used in the building of furniture and the production of cabinets. Students will learn how to utilize woodworking machinery safely and accurately. It also covers the history of cabinetmaking, the major furniture styles and the elements and principles of design. Woodworking as a vocation and as a hobby is discussed. (Satisfies the fine arts requirements)





WOODWORKING

PPC: 6 Grades 10-12 **FULL YEAR** Prerequisite: Wood Technology CREDIT: 1.0

Weighting: 10%

Students explore various principles of technology through the medium of wood. The use of wood as a material for construction of buildings, furniture, and equipment, as well as its use in crafting will be investigated. Students will learn to use hand and power tools and develop skills in a variety of techniques and processes ranging from reading prints and developing project plans to joinery techniques and finishing procedures. This course may be scheduled every year and is designated Woodworking 1, 2, 3. As students' progress through the years, they are challenged to apply increasing levels of sophistication to class projects. (Satisfies the fine arts requirements)



7020 HOME REPAIR/CONSTRUCTION AND DESIGN

PPC: 6
Grades 9-12
FULL YEAR
CREDIT: 1.0

This is a course designed to give students a base knowledge of practical experiences of repair and construction jobs around the home. This course will provide you with all the basic information needed to understand and use hand tools, power tools, fasteners, and assorted building materials for the repair/construction of your home. You will gain knowledge of building structures and their various systems that need to be repaired or maintained. This course also teaches you the skills and techniques used in carpentry, masonry, plumbing, electricity, and other building trades. Coverage of topics such as repair of roofs, gutters, walls, floors, concrete, furniture, water and waste systems, electrical wiring systems, heating and cooling systems, and insulation. Proper attention to all housing systems is stressed to prevent costly bills for the DIY individual in the future.



7355 PROFESSIONAL CERTIFICATION

PPC: 3
Grades 10-12
FULL YEAR
CREDIT: 0.5

Professional Certification is a course that gives a student the opportunity to choose an advanced software application and complete his or her training in it. Examples include, but are not limited to, Autodesk design software, Unity 3D, and programming. This course provides students with the tools to learn the advanced applications of these programs and is a preparation for taking a certification exam at the end of the course. This course offers an immersive, project-oriented approach to skills learning. The purpose of this course is to provide students with much sought-after skills and industry standard certifications to prepare students for technical training, college courses in Drafting and Design, Game Design, Simulation, or Engineering, and for the workplace. This course can be taken multiple times sequentially or concurrently, each time for a different piece of software. (This course is graded Pass/Fail)



7040 GAME THEORY AND DESIGN (G.T.D.)

PPC: 6
Grades 9-12
FULL YEAR
CREDIT: 1.0

Learn how professional game designers create games and make your own. In this course you will learn the game design process, game evaluation techniques, and the basics of video game design and programming. You will make many projects for your portfolio, including both a tabletop game and video game. You will work with frameworks created by Riot Games (creators of League of Legends and Valorent) and Microsoft (creators of the XBOX and XBOX gaming) and use Minecraft to develop basic coding skills. (Satisfies the STEM credit and fine arts requirements)

MATHEMATICS



- Indicates that a Keystone Exam will be administered at the end of the course

Mathematics provides the basis for every field wherein measurement is required. As a discipline, it enables students to think clearly, sequentially, and logically. Students should choose mathematics courses which will provide the background necessary to pursue desired career goals. The sequences are designed to meet varied needs. A student is able to move from one sequence to another or to schedule concurrent courses with department approval provided that the prerequisites (if any) have been met. The forward progression of courses will always be required. Each student must consult with his or her math teacher in order to receive their math teacher's recommendation and approval for the next course. At the end of the school year, all course selection recommendations and student grades will be reviewed. If a student's grades have changed in such a way that the chosen course prerequisite has not been met, the student may not move on to that course. Upon completion of eleventh grade, each student must have taken two Algebra courses (or Algebra 2 and Precalculus) and one Geometry course.

1015 ALGEBRA 1A

Grades 9-11 FULL YEAR
Prerequisite: 8th Grade Math and Teacher Recommendation CREDIT: 1.0

PPC: 6

This Algebra 1A course is designed to contain the first portion of the Algebra 1 curriculum. The course takes an approach that allows students to sharpen the math skills learned in middle school while applying those skills to the study of Algebra. Included in the curriculum is an emphasis on conceptual development. Course material covers the Real Number System, radicals, GCF/LCM with monomials, polynomial operations, solving one-variable equations, and solving and graphing one-variable inequalities.

1025 ALGEBRA 1

MCAA Grades 9-11

Prerequisite: 8th grade Math or

below a 60% in 8th grade Algebra 1

Students entering ninth grade who have not taken an Algebra I course previously should start their high school sequence with this mathematics course. Students who took Algebra I in middle school and earned a failing grade should also start high school with this course. Students taking Algebra 1 may still qualify for future post-Secondary courses. In Algebra 1, students learn the basic definitions, terminology, and rules necessary for the complete algebra sequence. An emphasis on reasoning and justification of algebraic processes is introduced. Radicals, polynomials, and solving and graphing one- and two-variable equations and inequalities are covered in depth. A heavy emphasis is placed on the standards outlined for the Algebra 1 Keystone Exam.

PPC: 6

PPC: 6

FULL YEAR

CREDIT: 1.0

1125 ALGEBRA 2

PPC: 6
Grades 9-12
FULL YEAR
Prerequisite: Algebra 1 or Algebra 1B in high school or
CREDIT: 1.0

between a 60-79% in 8th Grade Algebra 1 (recommended average)

This course is designed to present the essential skills of Algebra 2. Throughout this course students will review solving equations and inequalities, graphing linear equations and inequalities, solving systems of equations and inequalities (2x2), probability and statistics. Students will also study graphing and solving quadratic equations, factoring, simplifying polynomials and rational exponents, solving radical equations, and simplifying rational expressions.

1150 ALGEBRA 2 (PS)

NC44

Grades 9-10 FULL YEAR

Prerequisite: 80% in high school Algebra 1 (recommended average) or CREDIT: 1.0

80% in 8th grade Algebra 1 (recommended average)

Weighting: 10%

This course is designed for students who intend to pursue the higher level mathematics courses. Throughout this course students will study solving systems of equations and inequalities (2x2 and 3x3), manipulating complex matrices and determinants, graphing and solving quadratic equations, factoring, factoring beyond a quadratic, graphing and solving polynomial equations, simplifying polynomials and rational exponents, solving and graphing radical equations, simplifying rational expressions and solving rational equations.

1175 HONORS ALGEBRA 2

Grades 9-10 **FULL YEAR** МСДД CREDIT: 1.0

PPC: 6

Prerequisite: Teacher Recommendation, PVASS Projections and

90% in 8th grade Algebra 1 (recommended average)* or 95% in high school Algebra 1 (recommended average)*

Weighting: 15%

This course is designed for those students who plan to proceed through the advanced curriculum in order to take AP Calculus in their senior year. Emphasis is placed on solving difficult onevariable and two-variable equations, critical thinking skills, strengthening and extending mathematical vocabulary, graphing, and solving quadratic equations, solving polynomial equations, solving radical equations, solving exponential and logarithmic equations, and simplifying rational expressions.

*High school students who wish to accelerate into an Honors section from a non-Honors section must successfully complete a department-produced packet of supplemental work. This packet must be done by the announced deadline.

1325 **ALGEBRA 3/TRIGONOMETRY**

PPC: 6 **FULL YEAR** Grades 11-12 NC44

Prerequisite: Plane Geometry and Algebra 2 CREDIT: 1.0

This course is designed for the student with a good understanding of Algebra 2. Algebra 3 entails a thorough coverage of radicals, exponents, and linear equations. Inequalities, quadratic equations, polynomials, complex numbers, and rational equations are covered in depth. The study of Trigonometry includes basic definitions and properties, graphing of trigonometric functions, and solving triangles. Application of trigonometric properties to real-life problems is emphasized to provide the student with a sense of the practicality and usefulness of the subject matter.

1225 PLANE GEOMETRY

PPC: 6 Grades 10-12 **FULL YEAR** Prerequisite: Algebra 2 or Below a 76% in Algebra 2 (PS) or CREDIT: 1.0

Algebra 1A and Algebra 1B

Plane Geometry is a course designed to present the essentials of geometry. Basic constructions will be included in course concepts. Students study the properties of congruence, angles, and polygons. Similarity, analytic geometry, and measurements (in the form of circumference, area, perimeter) are stressed. The study of triangles is also stressed. The concepts of parallel and perpendicular lines and the Pythagorean Theorem are included in this course.

1250 PLANE GEOMETRY (PS)

NCAA

Grades 10-11 FULL YEAR
Prerequisite: 90% in Algebra 2 or 76% in Algebra 2 (PS) CREDIT: 1.0

Weighting: 10%

The study of Plane Geometry PS helps students to develop deductive reasoning powers and provides a foundation for more advanced mathematics courses. Special emphasis is placed on using theorems, corollaries, and postulates to enable the student to prove congruence in triangles and quadrilaterals. Parallel lines, proportions, and similarity including numerical computation are also studied. Plane Geometry PS is a college preparatory geometry course.

1275 HONORS PLANE GEOMETRY

NCAA

PPC: 6
Grades 10-11
Prerequisite: Teacher Recommendation and
CREDIT: 1.0

85% in Honors Algebra 2 (recommended average) or Teacher

Recommendation and 95% in Algebra 2(PS) (recommended average)*

Weighting: 15%

This course is designed for those students who plan to proceed through the advanced curriculum in order to take AP Calculus in their senior year. Great emphasis is placed on the application of theorems, postulates and corollaries in geometric proofs involving triangles, quadrilaterals, and circles. In addition, special attention is devoted to area, volume, circumference, and the study of right triangles in preparation for trigonometry.

*High school students who wish to accelerate into an Honors section from a non-Honors section must successfully complete a department-produced packet of supplemental work. This packet must be done by the announced deadline.

1520 CONSUMER MATHEMATICS

PPC: 6

PPC: 6

Grades 11-12 FULL YEAR
Prerequisite: Algebra 1 CREDIT: 1.0

Consumer Mathematics places emphasis for all students, regardless of their plans after graduating, in life-related problem-solving skills using the basic arithmetic operations with whole numbers, fractions, decimals, and percentages. Topics include consumer literacy, consumer credit, housing, income and budgeting, taxes, investments and insurance. Students study consumer terminology, concepts, and mathematical operations. Calculators are used frequently as this course stresses problem solving, not arithmetic review. This course is reserved for seniors; however, juniors may be admitted provided that they are enrolled in a second math course at the same time.



PRECALCULUS

PPC: 6 NC44 Grades 11-12 **FULL YEAR** CREDIT: 1.0

Prerequisite: 75% in Plane Geometry (PS) (recommended average)

and 85% in Algebra 2 (PS) or 95% in Algebra 2

Weighting: 10%

This course is designed for those students who plan to take Calculus. It includes a thorough discussion of solving equations and inequalities. An introduction to theory of equations is also covered. The study of trigonometry covers the basic definitions and properties. Identities are covered along with their use in solving equations. Solution of right and oblique triangles is studied along with using logarithms to perform more complex arithmetic operations and to solve logarithmic equations. Graphing of functions is covered in depth including polynomial, rational, exponential, logarithmic, and trigonometric.

HONORS PRECALCULUS

FULL YEAR

PPC: 6

PPC: 6

Grades 11-12 Prerequisite: 80% in Honors Plane Geometry (recommended average) and CREDIT: 1.0

85% in Honors Algebra 2 (recommended average)

Weighting: 15%

This college level course is designed for those students who plan to take AP Calculus. It includes a thorough discussion of solving equations and inequalities. An introduction to theory of equations is also covered. The study of trigonometry covers the definitions and properties. Identities are covered in depth along with their use in solving equations. Solution of right and oblique triangles is studied along with using logarithms to perform more complex arithmetic operations and to solve logarithmic equations. Graphing of functions is covered in depth including polynomial, rational, exponential, logarithmic and trigonometric. Polar coordinates and complex numbers are studied. Conic sections, vectors and determinants will be introduced.



CALCULUS 1475

NCAA

Grade 12 **FULL YEAR**

Prerequisite: 75% in Precalculus (recommended average) CREDIT: 1.0

Weighting: 15%

This is a college level course. The class completes the topics not covered under the Precalculus course outline, then pursues a discussion on curve sketching, differential calculus, and integrals. Other applications in differential and integral calculus are covered as time permits.



1490 AP CALCULUS AB

Grade 12 **FULL YEAR** NC44

Prerequisite: 85% in Honors Precalculus (recommended average)

Weighting: 20%

This is a college level course. The class pursues a discussion on curve sketching, differential calculus and integral calculus. Applications of differentiation and integration will be covered in depth. This course is focused on preparing for the Advanced Placement exam, and it will be studied through the use of the graphing calculator. This course may not be taken on a pass/fail basis. AP Calculus may be taken for dual enrollment credit through RACC. This course requires summer work to be completed prior to the start of the school year.



PPC: 6

PPC: 6

CREDIT: 1.0

PROBABILITY & STATISTICS 1555

Grade 12 **FULL YEAR** Prerequisite: Algebra 2 and Plane Geometry CREDIT: 1.0

Weighting: 10%

NC44

This course surveys the use of statistics and the impact statistics have on the world around us. Probability as a tool for generating statistics is discussed. Students discover how to use statistics to make decisions and how statistics can be misused. By utilizing realistic hands-on situations and simulations, students experience practical and useful applications of statistical principles. This course is designed as an elective primarily for seniors and is useful for both career prep and college prep students. Juniors may take this course only if they are also enrolled in a required course at the same time.

MUSIC

The high school music program offers a variety of courses to develop and refine musical skills. All students must complete a fine arts class (designated music or art elective) in order to fulfill the graduation requirement.

The comprehensive music curriculum prepares students for courses in music education, performance, composition, and theatre arts.



8825 CONCERT CHOIR

PPC: 3
Grades 9-12
Weighting: 10%
FULL YEAR
CREDIT: 0.5

This ensemble rehearses three times per six-day cycle. The high school choir performs a variety of music to develop the student's musicianship skills. Performances at scheduled concerts are mandatory since these concert performances are the culminating effort of our rehearsals and each is the equivalent of a final exam. Students will be required to take vocal tests each semester in order to maintain their position in the choir. (Satisfies the fine arts requirements)



8540 VOICE CLASS

PPC: 6
Grades 9-12
ONE SEMESTER

CREDIT: 0.5

This new course offers a beginning introduction to the voice. Instruction includes vocal health, vocal anatomy and tone production, vocal ranges, audition and performance tips, and vocal repertoire (classical, folk, pop). Students in this course should expect to SING! (vocal warm-ups, exercises, sight singing, voice lessons) (Satisfies the fine arts requirements)



8640 BEGINNING GUITAR

PPC: 6
Grades 9-12
ONE SEMESTER
CREDIT: 0.5

This beginning course introduces students to basic guitar playing. Instruction includes history of the guitar, parts of the 6 stringed instrument, basic chords and notes with strumming and finger picking, and simple melody and chord songwriting. Students will listen to various styles of guitar music such as folk, classical, and rock. A classical acoustic guitar is provided for each student to use throughout the semester long course. (Satisfies the fine arts requirements)



8645 BEGINNING UKULELE

PPC: 6
Grades 9-12
ONE SEMESTER
CREDIT: 0.5

This beginning course offers a complete introduction to the ukulele. Instruction includes history of the ukulele, parts of the 4 stringed instrument, basic chords and notes with strumming and picking, strumming while singing, and beginning composition. A soprano ukulele is provided for each student to use throughout the semester long course. (Satisfies the fine arts requirements)



8910 MUSIC MAJOR

PPC: 3 Grades 10-12 **FULL YEAR** CREDIT: 0.5

Prerequisite: Member of Band/Concert Choir/ Orchestra and/or

Permission from Music Teachers.

Weighting: 15%

This advanced course is designed for students seriously interested in a career in music. Students will learn advanced music theory and history, ear training, orchestration, composition, counterpoint, beginning conducting, music literature, and keyboard lab skills. Students will keep a music notebook for written musical compositions and class materials. The course will cover college level theory material and will prepare the student for college entrance exams and auditions. This course may be scheduled every year and is designated as Music Major 1, 2, 3. (Satisfies the fine arts requirements)

8610 PIANO I

Grades 9-12

PPC: 6

ONE SEMESTER CREDIT: 0.5

LIMITED SEATS: 14

This one semester class is designed for students who are eager to explore music while learning how to play the piano. Using pianos and keyboards, students will be introduced to music theory and the fundamentals of piano (technique, hand positioning, posture). Students will try music games, practice varied repertoire of simple melodies and chords, listen to both online and live piano performances, and play music for themselves and others. (Satisfies the fine arts requirements)



8615 PIANO II

PPC: 6 ONE SEMESTER Grades 9-12 Prerequisite: Piano I/Teacher Permission CREDIT: 0.5 Weighting: 10% LIMITED SEATS: 14

This class is an independent study that is designed for students who have had piano or are familiar with the keyboard and reading of two clefs. Students who have had more than one year of piano instruction or the Piano I class may take this course. Focus will be on sight-reading, repertoire on the grand staff, composition for the piano, and interpretation of various styles. (Satisfies the fine arts requirements)

Grades 9-12 Weighting: 10%

PPC: 6 ONE SEMESTER CREDIT: 0.5

LIMITED SEATS: 14

This course is designed for students who have completed Piano II. Advanced to intermediate skills that will be the focus of this course include chromatics, chords and their inversions, playing and writing counterpoint (2-part writing), and complex rhythmic and key signature work. The electronic keyboards will be used to facilitate this intermediate piano course. (Satisfies the fine arts requirements)



8855 CONCERT BAND

PPC: 3 Grades 9-12 **FULL YEAR** Prerequisite: Middle School Band or Audition CREDIT: 0.5

Weighting: 10%

This is a non-select band which rehearses three times per cycle during school hours and requires some out-of-school rehearsal time. The band prepares and performs a variety of marching and concert band music and provides music for parades, halftime shows and other sports and concert events. (Satisfies the fine arts requirements)



8865 CONCERT ORCHESTRA

PPC: 1 Grades 9-12 **FULL YEAR** Prerequisite: Middle School Orchestra or Audition CREDIT: 0.2

Weighting: 10%

This ensemble rehearses two times per six-day cycle. The high school orchestra performs a variety of music to develop the student's musicianship skills. Performances at scheduled concerts are mandatory since these concert performances are the culminating effort of our rehearsals and each is the equivalent of a final exam. Students will be required to take playing tests each quarter in order to maintain their position in the orchestra. (Satisfies the fine arts requirements)



8660 EXPLORING MUSIC TECHNOLOGY

PPC: 6 ONE SEMESTER Grades 9-12

CREDIT: 0.5

This project-based course is designed for students eager to dive into the endless possibilities of music production, composition, and sound design. No music experience is necessary for this class. Students will have hands-on experience with current technologies. There will be opportunities for you to produce remixes and mash-ups, make podcasts, and create original work.

SCIENCE



- Indicates that a Keystone Exam will be administered at the end of the course

The science curriculum is designed to emphasize the process of scientific inquiry so that students can think clearly, solve problems, participate in scientific discoveries, and interpret scientific data. These areas of emphasis are designed to fulfill three goals for students: (1) to prepare for further study and potential careers in biology, medicine, chemistry, physics, environmental science, etc.; (2) to instill such ongoing scientific curiosity that the student will continue to ask and answer scientific questions; and (3) to develop an appreciation for the role of science and scientists in the world of expanding technology. Inquiry and curiosity are stimulated through lecture and discussion, review of current scientific literature, and laboratory activities.

2025 INTEGRATED SCIENCE



Grade 9

PPC: 6 **FULL YEAR**

CREDIT: 1.0

This course focuses on the analysis and understanding of natural phenomena through investigations and inquiry. Students will apply critical thinking skills to address testable questions in a scientific manner. Students will work to build their science skills through the study of natural phenomena related to physical, life, and earth and space sciences.



ENVIRONMENT & NATURAL RESOURCES

NCAA

Grades 9-12

Weighting: 10%

PPC: 6 **FULL YEAR** CREDIT: 1.0

This course will provide students with an overview of environmental problems/issues which occur at local, national, and global levels. Special emphasis will be placed upon environmental issues which occur in Pennsylvania. Topics of study will include waste management, watersheds, water quality, biodiversity, invasive species, and population studies.



2490 AP ENVIRONMENTAL SCIENCE

PPC: 8

Grades 10-12 **FULL YEAR** NC44 Prerequisites: Biology and Chemistry (or taking Chemistry concurrently) CREDIT: 1.4

Weighting: 20%

In this college level course critical and analytical thinking skills will be developed to prepare students for a college science curriculum and the Advanced Placement exam. Areas of study will include earth systems and resources, ecology, population biology, land use, water use, mining, energy resources and consumption, pollution, and global change. Students will identify and analyze environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing these problems. Summer work is required for this course. Summer work must be picked up and completed prior to the start of the school year. This course is available for dual enrollment credits through RACC.

2125 **BIOLOGY**

RACC

PPC: 6 Grade 10 **FULL YEAR** Prerequisite: Integrated Science CREDIT: 1.0

Biology is the study of living things and their environment. Students will learn concepts related to cell biology and reproduction, genetics, protein synthesis, and evolution. The course will prepare the student for the Keystone Exam in Biology which will be taken at the end of the course.

2150 **BIOLOGY (PS)**

PPC: 6 NCAA

Grade 10 **FULL YEAR** Prerequisite: 90% in Integrated Science and teacher recommendation CREDIT: 1.0

Weighting: 10%

Biology is the study of living things and their environment. Students will learn concepts related to cell biology and reproduction, genetics, protein synthesis, evolution, and biochemistry. Biology (PS) is strongly recommended for those students who plan to attend a post-secondary institute of learning. This course will be faster-paced and more in-depth than Biology. Students interested in this course should have strong reading comprehension and time-management skills, as well as the ability to regularly complete independent assignments in and out of the classroom. The course will prepare the student for the Keystone Exam in Biology which will be taken at the end of the course.

2175 HONORS BIOLOGY

NC44

PPC: 7
Grades 9-10
Prerequisite: 94% in 8th grade Science or Integrated Science,
CREDIT: 1.2

teacher recommendation, PVASS Projections

Weighting: 15%

Biology is the study of living things and their environment. Students will learn concepts related to cell biology and reproduction, genetics, protein synthesis, evolution, biochemistry, and ecology. Honors Biology is strongly recommended for those students who plan to attend a post-secondary institute of learning, particularly a college or university. This class is designed for students who are academically ready to take on a college-preparatory science course, as well as students looking to take advanced placement (AP) courses as high school upperclassmen. This course will be an intense and more in-depth exploration of the content than seen in Biology or Biology (PS). Students interested in this course should have strong reading comprehension and time-management skills, as well as the ability to regularly complete independent assignments in and out of the classroom. The course will prepare the student for the Keystone Exam in Biology which will be taken at the end of the course.





PPC: 9

FULL YEAR

CREDIT: 1.4

2190 AP BIOLOGY

Grades 10-12

NCAA

Prerequisite: 90% in Biology (PS or HNRS)

86% in Chemistry (PS or HNRS) or taking Chemistry concurrently with Biology teacher recommendation

Weighting: 20%

This inquiry-based course is designed to be the equivalent of a college introductory biology course and will prepare students to take the AP exam at the conclusion of the class. The course aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing field of biology. AP inquiry instruction encourages students to build knowledge, think critically, and develop an understanding of how scientists study the natural world. This intense course will cover topics such as ecology, evolution, cell biology, genetics, microbiology, biochemistry, and molecular biology. AP Biology is designed for students considering careers in scientific research and development, medicine, pharmaceuticals, biotechnology, genetics and beyond. This course is available for dual enrollment credits through RACC. Summer work is required for this course. Internet access to complete assignments will be required. If a student cannot arrange technology access on their own, a student may request permission from IT and the course instructor to borrow a computer over the summer to complete summer assignments via a written request.

2250 CHEMISTRY (PS)

Grades 10-12

Prerequisite: Algebra Weighting: 10%

Chemistry is a study of the structure and composition of matter and the changes that matter undergoes during chemical reactions. Concepts such as atomic theory, covalent & ionic bonding, types of chemical reactions, stoichiometry, phases of matter, and solutions may be presented along with activities that require algebra to develop problem-solving techniques. This course may also include some laboratory work to supplement the theoretical concepts.

PPC: 6

FULL YEAR

CREDIT: 1.0

2275 HONORS CHEMISTRY

PPC: 7
Grades 10 - 11
FULL YEAR

Prerequisite: 86% in Honors Biology or 90% in Biology P.S. and Algebra 1 CREDIT: 1.2

Weighting: 15%

NC44

The focus of Honors Chemistry is the study of matter-its structure, composition, and changes. This course is strongly recommended for those students who wish to pursue upper-level science classes in their junior and senior years. Honors Chemistry meets the chemistry prerequisite for post-secondary schools that offer science-related majors. Focus will be on theoretical and practical application and problem solving for all chemical theories leading to Advance Topics in Chemistry and freshman chemistry in college. The subject matter of this course is taught at an accelerated pace utilizing higher-level thinking skills and practices. A lab session is included with this class.

2610 EXPLORING CHEMISTRY

PPC: 6
Grades: 11-12
SEMESTER

Prerequisite: Integrated Science, Biology CREDIT: 0.5

This introductory chemistry course is designed to allow exploration between chemistry and other domains of science. This course focuses on "cause and effect" concepts with practical relevance, allowing students to develop a coherent and scientifically informed view of the world around them. This course is not intended for students who wish to pursue a career in the science or medical fields.





2285 ADVANCED TOPICS IN CHEMISTRY

PPC: 7
Grades 11-12
FULL YEAR
Prerequisite: Chemistry (Honors or PS) & Algebra
CREDIT: 1.0

Weighting: 20%

NCAA

This course is recommended for students who will be entering college in either a liberal arts or science curriculum. In this course the student will build upon those concepts and skills established in Chemistry and pursue new avenues of learning in the areas of kinetic molecular theory, solution mechanics, chemical bonding, acid-based chemistry, reaction equilibria, electrochemistry, redox reactions, state functions, and organic chemistry. Inquiry based labs and projects are a main concentration of this course. This course may be available for dual enrollment credits through RACC.



2575 ANATOMY AND PHYSIOLOGY

Grades 10 -12
Prerequisite: Biology (PS) or Honors Biology

PPC: 6
FULL YEAR
CREDIT: 1.0

Weighting: 15%

This course has been designed to concentrate on the intricate workings of the human body. It consists of an in-depth study of anatomical structures, physiological pathways, and medical terminology. Major organ systems studied in this class include skeletal, muscular, nervous, cardiovascular, respiratory, digestive, urinary, and reproductive systems. Students will be required to participate in multiple dissections including bone, brain, heart, and fetal pig to help facilitate the important connection between the structure of specific organs and their functions. The course is planned to further prepare the student for majoring in Biology, Pre-Med, Nursing, Lab Technology, Physical Therapy, or other health-related and science occupations.

2375 HONORS PHYSICS

PPC: 7
Grades 11-12
FULL YEAR

Prerequisite: 86% in Honors Chemistry or 90% in Chemistry P.S. CREDIT: 1.2

and Algebra 2

Weighting: 15%

Honors Physics is designed for students that wish to pursue upper-level science classes in their junior or senior year. Analytical procedures are applied throughout the course. Emphasis is also placed on physics concepts to explain phenomena that students observe in everyday life.

2350 PHYSICS (PS)

NC44 Grades 11-12

FULL YEAR Prerequisite: Algebra CREDIT: 1.0

PPC: 6

PPC: 8

Weighting: 10%

This course is an introduction to the basic principles of physics including mechanics, light, and sound. Emphasis is placed on applying physics concepts to explain phenomena that students observe in everyday life. Complex mathematics computations are not required.



AP PHYSICS 1 2390

NC44 **FULL YEAR** Grades 11-12

Prerequisite: 80% Honors Algebra 2 & CREDIT: 1.4

taking Honors Geometry or higher concurrently

Weighting: 20%

The AP Physics 1 course is a non-calculus based, college level physics course. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; simple harmonic motion; and fluids. This course focuses on preparing the students for the Advanced Placement Physics 1 exam.



2510 FORENSIC SCIENCE 1

PPC: 6 Grades 10-12 ONE SEMESTER CREDIT: 0.5

Prerequisites: Integrated Science (completed)

Forensic Science 1 is an introductory forensic science course written for high school students that focuses on observation skills, identification and collection of physical evidence, processing and investigating crime scenes, fingerprinting, and the recognition of manner, mechanism, and cause of death. This course will heavily involve student in laboratory-based assignments, crime scene investigations, and analyzing and reporting their findings.



2515 FORENSIC SCIENCE 2

PPC: 6 Grades 11-12 ONE SEMESTER Prerequisites: Biology (completed) CREDIT: 0.5

Weighting: 10%

Forensic Science 2 is an extension of the learning that takes place in Forensic Science 1. This course will focus on topics such as the in-depth study of types of physical evidence such as forensic anthropology, odontology, blood stain analysis, and entomology and decomposition. This course will heavily involve students in laboratory-based assignments, crime scene investigations, and analyzing and reporting their findings.



2560 INFECTIOUS DISEASES

Grades 11-12 ONE SEMESTER

Prerequisite: 86% in Biology (PS or HNRS)

CREDIT: 0.5

86% in Chemistry (PS or HNRS) or taking Chemistry concurrently

Weighting: 20%

The interests of pathogens are often at odds with those of humans. As a result, microbial diseases occur often, and emerging diseases are frequently in the news. The more we disturb the balance of nature and increase world-wide travel, the more often we increase the scope of disease outbreaks. In this rigorous, lab-based course, we will explore the fields of virology, microbiology, epidemiology, and immunology to gain an understanding of what makes us sick and how our body works tirelessly to keep us healthy. This course is recommended as a complement to course work in Anatomy and Physiology and/or AP Biology. **Dual enrollment through RACC is available for this course.** (Satisfies ½ credit of the STEM requirements)



2520 THE COSMIC LANDSCAPE

NC44

PPC: 6
Grades 10-12
ONE SEMESTER

CREDIT: 0.5

PPC: 3

Can you identify The Big Dipper? Design a rover to explore Mars? Become an astronomer and learn more about the cosmic landscape. In this course, students will learn about "the dark side of the moon", explore each of the planets, and discuss theories on how the solar system was formed. Explore the cosmic landscape through hands-on activities, internet-based technologies, and project design.



2530 STARS AND GALAXIES

NC44

PPC: 6
Grades 10-12
ONE SEMESTER
CREDIT: 0.5

Why do stars like our Sun exist? Why do they explode when they die? Do colors of light exist beyond what our eyes can see? Become an astronomer and answer these questions, plus more. Students who take Stars and Galaxies will learn about stars, galaxies, and light through activities, projects, and observations through telescopes.

2612 INTRODUCTION TO GEOSPATIAL TECHNOLOGIES (GIS)

PPC: 6

Grades: 10-12 SEMESTER
Prerequisite: Integrated Science CREDIT: 0.5

Geospatial technology is an emerging field of study that includes Geographic Information Systems (GIS), Remote Sensing (RS), and Global Positioning Systems (GPS). It enables us to acquire data that is reference to the earth and use it for analysis, modeling, simulations, and visualization. One method of collecting data is through Unmanned Aerial Vehicles (UAV), called drones. Each unit of this course will cover a different area of the technology, followed by a summative project that demonstrates knowledge of the concepts presented.

SOCIAL STUDIES

The social studies curriculum is built upon the foundation disciplines of history, geography, economics, sociology, psychology, anthropology, and political science. The specific courses and topics which comprise the curriculum rest on this foundation and focus on the past, present and future interaction of human beings and their environment.

The special purpose of social studies is citizen education and the civic learning of each individual. The Hamburg Area School District has as its goal the development of a contributing and productive individual possessing self-awareness, knowledge, skills, and a sense of responsibility as a member of the family, school, local community, state, nation, and the world.

4025 CIVICS

NC44

Grade 9

PPC: 6 FULL YEAR CREDIT: 1.0

This course concentrates on the organization and function of our national, state, and local governments. The study is designed to target the principles and practices of our democratic system of government with an emphasis placed on how the federal government operates and its impact on society through American historical examples. This course requires students to complete projects along with a cross-curriculum field trip to historic Philadelphia.

4075 HONORS CIVICS

NC44

Grade 9 Weighting: 15% PPC: 6 FULL YEAR CREDIT: 1.0

This course covers the same scope as the Civics course. However, students are expected to connect larger units of material with their conceptual basis. Methods of evaluation will be more challenging as well as a greater range of projects involving research, role playing, oral presentations, writing assignments and group discussions.

4125 WORLD CULTURES

Grade 10 FULL YEAR CREDIT: 1.0

PPC: 6

World Cultures covers all aspects of cultural development of the world from the Reformation (1500's) through World War I (1918). It uses both time perspective and current events to illustrate cultural developments in the western and non-western world. The course brings out the importance of economic, geographic, political, and social influences upon the formation of the combined cultural regions of the world.

4150 WORLD CULTURES (PS)

NCAA

PPC: 6
Grade 10
FULL YEAR
Weighting: 10%
CREDIT: 1.0

This course pursues the topics of World Cultures in greater depth and more rigorous standards of evaluation.

4175 HONORS WORLD CULTURES

NC44

PPC 6
Grade 10
FULL YEAR
Weighting: 15%
CREDIT 1.0

This course has the same scope as the World Cultures course. However, the students are expected to connect larger units of material with their conceptual basis. Methods of evaluation will be more challenging as well as a greater range of projects involving research, role playing, oral presentations, writing assignments, and group discussions.

4225 AMERICAN CULTURES

PPC: 6
Grade 11
FULL YEAR
CREDIT: 1.0

This course is a chronological survey of the major political, social, and economic events that have impacted the development of the United States from 1898 to the present day. The course places emphasis on relating past events to current affairs that are affecting daily life in our society.

4250 AMERICAN CULTURES (PS)

NC44

PPC: 6
Grade 11
Weighting: 10%
FULL YEAR
CREDIT: 1.0

This course is a chronological survey of the major political, social, and economic, events that have impacted the development of the United States from 1898 to the present day. The course places emphasis on relating past events to current issues that are affecting life in our society. Where appropriate, this course pursues, in detail, topics that contribute to the state of the culture in which we currently exist such as: war (civil and international), immigration, economic disruptions, industrialization and globalization, media influence, political confrontation, and social movements.



4290 AP UNITED STATES HISTORY

RACC

Grade 11

Weighting: 20%

FULL YEAR CREDIT: 1.0

PPC: 6

AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. The AP U.S. History 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 nine historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) 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. **Summer reading assignments are required.**

4490 AP UNITED STATES GOVERNMENT

MCAA Grade: 12

PPC: 6 FULL YEAR CREDIT: 1.0

AP U.S. Government provides a college-level, nonpartisan 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 study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project.

4325 **GLOBAL STUDIES**

FULL YEAR Grade 12

CREDIT: 1.0

PPC: 6

PPC: 6

Global Studies is designed to have students geographically locate and identify areas of the world and critically examine areas of the world especially problem areas of the world. This course is also designed to have students recognize and identify prominent people in current world affairs. Students will also be able to demonstrate a basic understanding of the people, history, and government of various areas of the world. In addition, Global Studies strives to have students be able to make critical evaluations of current world affairs and to instill in each student a desire to keep abreast of current affairs throughout their life.

GLOBAL STUDIES (PS) 4350

NC44

PPC: 6 Grade 12 **FULL YEAR** Weighting: 10% CREDIT: 1.0

Besides the basic course requirements students will be required to complete projects throughout the school year, read a daily newspaper and view a daily news program and read current magazine articles that pertain to current issues being studied in class.



4560 **SOCIOLOGY**

NCAA

ONE SEMESTER **Grades 11-12** Weighting: 10% CREDIT: 0.5

Sociology is taught in order to help students gain insight into their own social relationships and to further develop their ability to look at the social world around them more objectively. Major emphasis is placed on topics such as: socialization of the individual, culture, minorities, the family, male and female roles, social stratification, group dynamics, culture change, social problems and social institutions.



NC44

PPC: 6 **Grades 11-12** ONE SEMESTER Weighting: 10% CREDIT: 0.5

Psychology is taught from a personal adjustment approach as well as a discipline-oriented approach. Emphasis is placed on topics such as human behavior, motivation, emotions, growth and development, mental health, mental illness, memory, and learning. Minor emphasis is placed on topics such as physiology, sleep, and dreams.



4510 WORLD CULTURAL GEOGRAPHY

PPC: 6
Grades 9-10
ONE SEMESTER
CREDIT: 0.5

World Cultural Geography will encompass a variety of topics in close relation to Human Geography. Students will explore major topics that are influential to international affairs. These topics include but are not limited to world religions, population, migration, conflict, and culture.



4515 WORLD PHYSICAL GEOGRAPHY

PPC: 6
Grades 9-10
ONE SEMESTER
CREDIT: 0.5

World Physical Geography will include important aspects of Political and Regional Geography. Major topics of study in these regions include political, physical, and regional features as well as developing basic geographic concepts of Earth's physical features, including, but are not limited to map skills, relative location, absolute location, global regions, parts of the Earth's interior, climate, human-environmental interactions, natural disasters, boundaries and settlements.



4565 PENNSYLVANIA HISTORY

PPC: 6
Grades 9-12
ONE SEMESTER
CREDIT: 0.5

This course will survey Pennsylvania history, geography, and government. This course will examine the vital role played by Pennsylvania in the development of the nation. Also, students will be able to understand the geographical significance of Pennsylvania as the "Keystone State," as well as learn about the many natural resources that contributed to Pennsylvania becoming an important agricultural and industrial region.



4535 ART HISTORY

PPC: 6
Grades 11-12
ONE SEMESTER
CREDIT: 0.5

This course will be a chronological survey of the major social and political events of Western Civilization from antiquity through the early twentieth century. The impact of these events on artwork will be explored and discussed in detail. The course will begin with artwork from several ancient civilizations and explore how artwork has changed dramatically throughout history. The intersection of political, economic, and social factors with the development of artwork will be a focus of the course. **Satisfies the elective OR fine arts requirement.**



4520 UNITED STATES MILITARY HISTORY

Grades 9-12

PPC: 6 ONE SEMESTER CREDIT: 0.5

This course will examine the significance of military affairs within the context of American political, economic, and social history from the colonial era through the modern struggle with terrorism. The course will discuss all of the major wars of this period, but it will also emphasize such themes as civilian involvement in wartime production, political support and technology.

WELLNESS PROGRAM

A planned program of wellness activities is offered that contributes to the individual's overall development. The program will include SEL activities, along with activities in team sports, lifetime sports/fitness, and individual sports, with major emphasis placed on physical fitness. A sequential program of skills-based health units is offered within the wellness program. Students will develop skills and acquire knowledge that they need now, and in the future, to maintain or enhance their health. These programs contribute to personal and community health, and encompass mental, emotional, social, spiritual, and physical dimensions of wellness.

ADAPTED PHYSICAL FITNESS

The Hamburg Area School District provides a program of adapted physical fitness for students not able to participate in the regular curriculum. Students with a significant chronic or lengthy (4 weeks or more) disability will be processed into the adapted program. The physical fitness teacher will handle those with minor medical problems or with incapacities of short duration on a day-by-day basis. The school nurse will be the person to make the determination as to whether or not a student is provided an adapted physical fitness program. This determination will be made based upon information provided by the student's physician, parent, teacher and an examination of the child's condition. The purpose of adapted physical fitness is to provide a program of activities appropriate to the child's needs and abilities. It is not to offer therapy or remediation for the child's condition – although these may result from the physical activities in which a student is engaged.

9010 WELLNESS 9 (3 classes per cycle)

PPC: 3 FULL YEAR CREDIT: 0.5

A program has been developed to introduce all freshmen to the high school wellness program. Students will be exposed to team building/cooperative games, an introductory fitness unit, various team sports, and culminate with Presidential Youth Fitness Testing, using Fitnessgram. The focus of this course will be on character building, introducing students to lifetime fitness, including aerobic activities and heart rate monitors, as well as learning the basic skills, rules, and tactics of various team sports. The following health concepts will also be incorporated, utilizing a skills-based approach, into Wellness 9: Intro to Wellness & Goal setting, Handling Emotions, Stress Management & Suicide Prevention, Medicine & Illegal Drugs, including the opioid epidemic, and Relationships & Sexuality, including HIV/AIDS Education.

9020 WELLNESS 10 (3 classes per cycle) 9022 BCTC WELLNESS 10

PPC: 3
Prerequisite: Wellness 9
FULL YEAR
CREDIT: 0.5

This program will build on the introductory Wellness 9 course to include exposure to the weight room and an introduction to lifetime sports. Students will continue to use heart rate monitors, improve upon their skills and knowledge of the rules and tactics of team sports and utilize them in small games, as well as be introduced to various lifetime sports. This course will also culminate with Presidential Youth Fitness Testing. The following health concepts, using a skills-based approach, will be incorporated in Wellness 10: Self-Esteem, Mental Health, Nutrition, Weight Management, Alcohol, Tobacco, and Vaping.

9040 WELLNESS 11/12 (3 classes per cycle) 9042 BCTC WELLNESS 11/12

PPC: 3
Prerequisite: Wellness 10
FULL YEAR
CREDIT: 0.5

Students will successfully participate in lifetime activities and regulation games by utilizing the skills and knowledge they have gained in the Wellness 9 & 10. They will engage in lifetime fitness activities, as well as play various lifetime and team sports, utilize the heart rate monitors and culminate the year with Presidential Youth Fitness Testing. The following health concepts, using a skills-based approach, will be incorporated into Wellness 11/12: Violence and Abusive Relationships, Digital Dating Abuse, STI and Pregnancy Prevention, Digital Citizenship, Fentanyl and Opioid Education, Lifestyle Diseases, and Advocacy. Students will also utilize previously learned skills and health concepts to design personal plans that pertain to their overall wellness, which encompasses mental, emotional, social, spiritual, and physical health.



PPC: 6

9060 STRENGTH AND CONDITIONING

Grades 11-12 FULL YEAR
Prerequisite: Wellness 9/10, Teacher Recommendation CREDIT: 1.0

Strength and Conditioning is a program of static and dynamic exercises used to develop every area of the body and improve the way a person moves, with the intention of enhancing sporting or physical performance. Students will learn both resistance training concepts, as well as aerobic exercise to improve muscle mass, cardiovascular and pulmonary fitness, and joint mobilization and flexibility. Students will routinely track and document their results in various weight training exercises throughout the year to demonstrate growth and improvement. Class sizes will be limited due to the amount of equipment and safety issues. Students who do not meet the expectations of this course in terms of proper attitude and work ethic may be dismissed from the course and enrolled in the Wellness 11/12 class. The following health concepts, using a skills-based approach, will also be incorporated into Strength and Conditioning: Violence and Abusive Relationships, Digital Dating Abuse, STI and Pregnancy Prevention, Digital Citizenship, Fentanyl and Opioid Education, Lifestyle Diseases, Nutrition, and Advocacy.



9055 PERSONAL FITNESS

PPC: 3
Grades 11-12
FULL YEAR
Prerequisite: Wellness 9/10
CREDIT: 0.5

Students will engage in various lifetime fitness activities, including fitness walking/running, plyometric training, aerobic training, and circuit training. This course will utilize the track, weight room, gym, and classroom. Students will have some flexibility in implementing fitness plans designed during Wellness 11, as well as refining those plans as needed. Heart rate monitors will be utilized, and the year will culminate with Presidential Youth Fitness Testing. The following health concepts, using a skills-based approach, will be incorporated into Wellness 111/12: Violence and Abusive Relationships, Digital Dating Abuse, STI and Pregnancy Prevention, Digital Citizenship, Fentanyl and Opioid Education, Lifestyle Diseases, and Advocacy. Students will also utilize previously learned skills and health concepts to design personal plans that pertain to their overall wellness, which encompasses mental, emotional, social, spiritual, and physical health.



9066 LEADERSHIP IN ATHLETICS

PPC: 3 Grades 11-12 **FULL YEAR** Prerequisite: Teacher Recommendation Only CREDIT: 0.5

Education: Exhibits strong leadership skills, Wellness 9/10

Students will be exposed to various team and lifetime sports, as they would in the General Wellness class. This course will allow the students to explore these activities using more in-depth rules and strategies, at a high level of competition. Students will be engaged in peer teaching, officiating, strategizing and competitive play within the parameters of the rules of the game. This will expose them to the following career pathways: teaching, officiating, and coaching. All students in this course will participate in advanced physical education 3 days per cycle and be assigned as a student aid for a 4th day of the cycle. This is mandatory and will allow you to further enhance your student leadership and organizational skills. The instructor will assign you as it suits your schedule. The following health concepts, using a skills-based approach, will be incorporated into Wellness 11/12: Violence and Abusive Relationships, Digital Dating Abuse, STI and Pregnancy Prevention, Digital Citizenship, Fentanyl and Opioid Education, Lifestyle Diseases, and Advocacy. Students will also utilize previously learned skills and health concepts to design personal plans that pertain to their overall wellness, which encompasses mental, emotional, social, spiritual, and physical health.

WORLD LANGUAGES

Research shows that students who have taken several years of a language learn much more about English in the process. As a result, they tend to achieve high scores on the verbal portion of college entrance tests. Language study can also make graduates more competitive in the job The in-depth study of a world language gives students an awareness of cultural differences among nations, resulting in better international understanding. students should complete at least a two-year sequence of one world language before graduation from high school. Careers in Foreign Service, international trade and government, interpreting, education, the media and travel involve knowledge of world languages.



SPANISH 1 5010

Grades 9-12 NC44

PPC: 6 **FULL YEAR** Recommended: At least a C average in Language Arts CREDIT: 1.0

In level 1, the students begin to develop the four basic language skills of listening comprehension, speaking, reading, and writing. Emphasis will be placed on listening and speaking skills through the use of audiovisual materials and dialogues. Students are introduced to the values and customs of the Hispanic culture.



5020 SPANISH 2

Grades 10-12 NCAA

FULL YEAR Prerequisite: Spanish 1 CREDIT: 1.0

PPC: 6

PPC: 6

PPC: 6

FULL YEAR

CREDIT: 1.0

Weighting: 10%

In level 2, students build upon the language skills acquired in level 1, with increased emphasis on reading and writing. Students begin to construct original sentences using correct grammatical patterns. Accurate speech is encouraged through more advanced dialogues and audiovisual materials.



5030 SPANISH 3

Grades 10-12 Prerequisite: Spanish 2

Weighting: 20%

In level 3, students continue to develop proficiency in the four language skills with emphasis on speaking, reading, and writing. Students are introduced to composition, longer reading passages and oral self-expression. Cultural awareness is acquired through dialogues and audiovisual materials. This course is available for dual enrollment credits through RACC.



5040 SPANISH 4

Grades 11-12 **FULL YEAR** Prerequisite: Spanish 3 CREDIT: 1.0

Weighting: 20%

In level 4, students refine their language skills through daily discussion in Spanish. Readings include native literature, periodicals, and cultural dialogues. Composition and original oral expression are required. Vocabulary and grammar are expanded and reviewed when necessary. This course is available for dual enrollment credits through RACC.



GERMAN 1 5110

NCAA

PPC: 6 Grades 9-12 FULL YEAR

Recommended: At least a C average in Language Arts CREDIT: 1.0

In level I, students begin to develop the four basic language skills of listening, speaking, reading, and writing. Emphasis is based on listening with the goal of "Actively listening with the intent to understand." A mixture of some authentic materials and materials developed for German language learners will be used to familiarize students with everyday expressions, and vocabulary dealing with topics such as the weather, family, animals, food, holidays, hobbies, school, clothing, and likes and dislikes. Students will be able to communicate in a simple manner with individuals who speak slowly and are sympathetic to their needs as language learners.



5120 GERMAN 2

NCAA

Grades 10-12

Prerequisite: German 1

Weighting: 10%

Students continue to develop proficiency in listening, reading, writing, and speaking through the use of a mixture of authentic materials and materials developed for German language learners. Cultural awareness is emphasized. Students will be able to understand sentences and commonly used phrases involving their personal information and needs. Students will be able to make themselves understood in common travel, and work or school situations using simple and direct exchanges.

PPC: 6

PPC: 6

PPC: 6 FULL YEAR

CREDIT: 1.0

FULL YEAR

CREDIT: 1.0

FULL YEAR

CREDIT: 1.0



5130 GERMAN 3

NC44

Grades 11-12
Prerequisite: German 2

Weighting: 15%

Students continue to develop proficiency in listening, reading, writing, and speaking through the use of a mixture of authentic materials and materials developed for German language learners. Cultural awareness is emphasized. Students will be able to understand and discuss the main points of topics such as work, school, travel, dreams, goals, current events, and holidays. They will be able to make short statements to explain needs and justify views. Students will strive to speak German whenever possible, negotiating meaning and employing gestures and mimic when necessary. Longer duration of reading texts and engagement in German will be necessary.



5140 **GERMAN** 4

NC44

Grade 12
Prerequisite: German 3

Weighting: 15%

In level 4, students refine their language skills through daily use of reading, writing, listening, and speaking in German. Real and virtual conversations take the form of partner, group and classroom discussions, emails, blogs, and vlogs. Native speakers are included in activities using computer technology, and during in-person visits sponsored by the German American Partnership Program and the *Goethe Institut*. Students present needs, perspectives, research, and comparisons both orally and in writing. Readings include graphs, illustrations, short stories, youth and young adult literature, and periodicals. Audio files contain situational scenarios such as those found in doctor visits, use of public transportation or business transactions. Video ranges from short YouTube clips, to German, Austrian, and Swiss television programs, to full-length movies in German. Grammar is reviewed as needed.



PPC: 6

FULL YEAR

CREDIT: 1.0

5190 AP GERMAN LANGUAGE & CULTURE

MCAA Grade 12

Prerequisite: German 3

Weighting: 20%

This class is comprised of six thematic units organized around essential questions and authentic materials. Vocabulary development continues throughout the year. For each thematic unit, various grammar points ("structural foundations") will be reviewed and practiced. In addition to grammar exercises from the *Handbuch zur deutschen Grammatik*, students practice the targeted structures through contextualized activities related to each unit's theme. Throughout the year we will conduct summative assessments to check text comprehension and interpretation, vocabulary, and structural points. Most of the grading of speaking and writing is holistically evaluated using scoring guides. The AP class is conducted almost exclusively in German, and students are encouraged to use German exclusively in class.

GLOSSARY

Some of the words and terms used in this booklet may not be familiar to you. The following brief explanations may be helpful.

CREDITS...

Each course is assigned a certain amount of credit which is earned by the student when the course is completed with a passing grade. The School Counseling Office keeps a record of the number of credits accumulated by students each year. Students must earn a minimum of twenty-four credits to graduate. A full-year course which meets every day provides one credit, whereas a semester course earns a half credit. Courses meeting less than full-time are awarded 0.2 credits for each class meeting in a six-day cycle. Credit amounts are shown in the curriculum offering section. A student must schedule at least 6.4 credits each year.

REQUIRED COURSE...

A required course is a course which all students must take. Some required courses are designated by name (Global Studies, for example). Other required courses specify an academic area but allow students to select a course within the department (Algebra, for example).

ELECTIVE COURSE...

An elective course may satisfy a particular academic requirement or it may be needed for the total number of credits necessary for graduation. Elective courses also allow students to prepare for college or a business career and fulfill individual needs and interests.

SEMESTER...

A semester is 90 school days. First semester begins on the first day of school and ends late in January. Second semester begins late in January and ends on the last day of school. A quarter is 45 school days.

PREREQUISITE...

A prerequisite is a requirement which the student must satisfy before taking a particular course. For example, a student must first pass Algebra before taking Chemistry (PS).

SEQUENTIAL COURSE...

A sequential course is one of a series of related courses. Spanish 1, for example, is the first course of a sequence of Spanish courses including Spanish 1, 2, 3, and 4. It is necessary to master the skills of each level before proceeding to the next. Sequential courses are found in many academic areas.

CYCLE SYSTEM...

Hamburg Area High School operates on a six-day cycle. The days are numbered, beginning with the first day of school, as day 1, day 2, day 3, day 4, day 5 and day 6 rather than Monday through Friday. In this way, if a particular day of the week is missed, classes scheduled to meet on that day would be held on the next day of school. The symbol "PPC" is used to mean the periods per cycle a course meets.