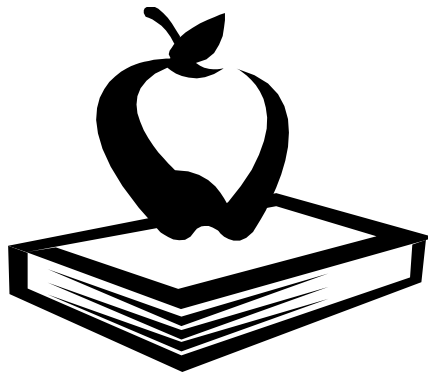


Program of Studies 2012-2013

Grades 9-12



Recent updates to this booklet can be
found online at www.cbsd.org.

Central Bucks School District
20 Welden Drive
Doylestown, PA 18901

CENTRAL BUCKS MIDDLE SCHOOLS~GRADE 9

HOLICONG MIDDLE SCHOOL

2900 Holicong Road
Doylestown, PA 18902
Jason H. Bucher, Principal
Deborah Kleeman, Barbara Louderback,
Joseph Stryker, Counselors
(267) 893-2700

LENAPE MIDDLE SCHOOL

313 West State Street
Doylestown, PA 18901
H. Nicholas Chubb, Ed.D., Principal
Ann Kuntzmann, Jodi Schmon, Counselors
(267) 893-2800

TAMANEND MIDDLE SCHOOL

1492 Stuckert Road
Warrington, PA 18976
Cheryl R. Leatherbarrow, Principal
Mandy Cammann, Jeffrey Klein, Kate Mallon,
Counselors
(267) 293-2900

TOHICKON MIDDLE SCHOOL

5051 Old Easton Road
Doylestown, PA 18902
Karen M. Wychock, Ed.D., Principal
JoAnn Bondar, Kate Mallon
Diane Schute, Counselors
(267) 293-3300

UNAMI MIDDLE SCHOOL

160 South Moyer Road
Chalfont, PA 18914
David A. Bolton, Ed.D., Principal
Kathleen Houpert, Catherine McLaughlin, Counselors
(267) 893-3400

CENTRAL BUCKS SENIOR HIGH SCHOOLS~GRADES 10-12

CENTRAL BUCKS HIGH SCHOOL-EAST

2804 Holicong Road
Doylestown, PA 18902
Abram M. Lucabaugh, Principal
Walter Sandstrom, Guidance Coordinator;
Tanya Barone-Durant, Elizabeth Carr,
Melanie Jones, George Moustakas, Marilyn
Russo, Counselors
(267) 893-2300

CENTRAL BUCKS HIGH SCHOOL-SOUTH

1100 Folly Road
Warrington, PA 18976
Scott L. Davidheiser, Principal
Virginia Barrett, Guidance Coordinator;
Taryn Barrett, Thomas Hill, Laura Ladley,
Michele McGrogan, Kerry Monk, Counselors
(267) 893-3000

CENTRAL BUCKS HIGH SCHOOL-WEST

375 West Court Street
Doylestown, PA 18901
J. Kevin Munnely, Principal
Lisa Corr, Guidance Coordinator;
Marykate Blankenburg, Michael Curtis,
Donna Dallam, Valerie D'Alonzo,
David Manners, Counselors
(267) 893-2500

Area Career and Technical School GRADES 9-12

MIDDLE BUCKS INSTITUTE OF TECHNOLOGY

2740 Old York Road
Jamison, PA 18929
Kathryn Strouse, Administrative Director
Rick Black, Thomas Viviano, Assistant
Principals, Erin Rinker, Counselor
(215) 343-2480

General Information

Planning Your Program

Planning a four-year program is a serious undertaking. Although some of your courses are required, you will have many choices to make during your years of school. The courses you request will be guided largely by your plans for the future. **Whatever your plans, you should be taking the most challenging courses you can within your academic abilities.**

Some students are sure of their future plans; others are not. It is common for young people to change their minds about which career to choose. The important thing is to choose as rigorous a program as possible so you don't limit yourself if you change your mind about college or career plans. Sometimes it seems overwhelming to have so many choices to make. Although scheduling is primarily your responsibility, you will have plenty of help from your counselor, your teachers, and your parents.

Your school counselor can provide detailed information about academic programs, graduation requirements, college admissions, technical programs, and scheduling options. Your teachers can help you decide whether you have the ability for a particular course and will recommend students for specific programs. Your parents can provide guidance about your plans for the future, and they must approve your final course request.

Scheduling decisions are important. Counselors and administrators work during the summer to provide a schedule that tries to accommodate the needs of all students. If it is impossible to schedule all course requests, alternate course requests will be used. **Once the schedule has been established, it may be impossible to honor a change request because classes have been fixed and teachers have been assigned—so choose carefully.**

Critical Course Changes

Changes in course requests will only be honored for the following two reasons: (1) failure to meet the required prerequisite; or (2) a level change that has been verified by the teacher.

Recommended Course Sequences

Under the English, Math, Science, Social Studies and World Language sections in Grades 10–12, you will find recommended course sequences for the Most Rigorous Program and the Academic Program.

The **Most Rigorous Program** is recommended for college-bound students with high achievement and interest in a particular academic area. Students who are planning to apply to the most selective colleges should select courses in one or more subject areas from this sequence. Very competitive colleges look for students who take a district's most challenging courses. If you plan to apply to very selective schools, you should be choosing courses from the most rigorous sequences.

Courses in the **Academic Program** have been designed with the rigor necessary for students who are planning to attend college. Students applying to very competitive schools may also want to select some of their courses from the Most Rigorous Program. Every year, returning alumni from a variety of colleges comment that their high school AP courses not only helped to prepare them for taking a particular college subject but also helped them in general to prepare for the large amount of reading and writing required in college.

High School Block Scheduling

The district's high schools use a block scheduling model. The year is divided into four nine-week terms or marking periods. Students take four courses each marking period, and each course is scheduled for ninety minutes. The longer class time allows for more in-depth learning.

Courses are taught for nine, eighteen, twenty-seven, or thirty-six weeks. In general, courses that are taught over the whole year in a traditional schedule are now completed in eighteen weeks (two marking periods). Typical semester courses, most of which are electives, are completed in nine weeks.

Many Advanced Placement courses are twenty-seven weeks in length; however, AP courses in Comparative Government, English Language and Composition, Computer Science, Environmental Science, Macroeconomics, Physics, Spanish, French, German, Statistics, and Music Theory are eighteen weeks long.

PE/Health is taught either for nine weeks or every other day for eighteen weeks. Music performance courses (band, orchestra, choir, jazz ensemble) are scheduled for a full year but on an A/B schedule (every other day). Block scheduling offers students several advantages. It allows students to concentrate on four subjects at a time without feeling rushed from one subject to another. The longer learning period each day gives you an opportunity to practice what you have just learned; a science lab, for example, can follow the lesson in the same period instead of being scheduled for another day. Because you can take the equivalent of eight full-year courses instead of the seven under the traditional system, you have more opportunities to accelerate course sequences, take additional courses in the areas that are most important to you, or explore arts, humanities, or business courses.

It is important to map out a four-year plan. Please refer to the worksheets in the back of this booklet.

Here are some sample schedules to give you an idea how block scheduling works. The courses listed are only examples—your schedule may look very different.

Grade 11				
	1st MP	2nd MP	3rd MP	4th MP
1	Psychology	Marketing	PE/Study Hall	SAT Prep
2	Spanish 4		Academic Chemistry	
3	PreCalculus/Trig 3		English 11	
4	American Government		Ceramics 1	
Grade 12				
	1st MP	2nd MP	3rd MP	4th MP
1	Academic Physics		English 12	
2	Choir/PE	Choir/Study Hall	Choir/Study Hall	Choir/Study Hall
3	Global Relations		Spanish 5	
4	Calculus 1		Calculus 2	

Here is a sample of a schedule for a student who attends Middle Bucks Institute of Technology in Grade 10. The MBIT program may be scheduled in the morning or afternoon. This example shows MBIT in the morning.

Grade 10				
	1st MP	2nd MP	3rd MP	4th MP
1	MBIT Program		MBIT Program	
2	MBIT Program		MBIT Program	
3	Modern World History		Academic Biology	
4	English 10		Geometry/Trigonometry 2	

Minimum Course Requirements

Students in senior year may have no more than one block each marking period as either early release or late-arrival. Central Bucks recommends that students take a rigorous course load based on their post-secondary career goals and plans.

Course Requests

All course requests will be reviewed with you, your teachers, and your parents. When you and your parents approve your Program Planning, consider that to be your final course request. **Courses must have a sufficient enrollment in order to be offered. If a course you requested will not be offered, another course will be selected from your alternate courses.**

Course Withdrawal

In the rare case that you may have been inappropriately placed in a course, a school policy governs how a course will be treated when it is dropped after the school year begins. Withdrawing from a course is a serious step and can affect your permanent record.

Changes in course requests will only be honored for the following two reasons: (1) failure to meet the required prerequisite; or (2) a level change that has been verified by the teacher.

The following are the rules for recording a course from which the student has withdrawn. If the withdrawal occurs during the first three days of a nine week course or the first five days for an 18, 27, or 36 week course, the course will be removed from the records.

If withdrawal from a course takes place for one of the two reasons listed above and occurs after the fifth school day for an 18, 27, or 36 week course (first three days for a 9 week course) but before the midpoint of the course, a grade of W+ (passing) or W- (failing) will

be recorded in the marking period column and in the final grade column on your report card and transcript.

If withdrawal from a course takes place for one of the two reasons listed above and occurs after the midpoint and is passing, the final course grade will be W+; if the student is failing, then the final course grade will be an F.

Graduation Requirements

(1) Course Credits. All students are required to earn a minimum number of credits by successfully completing the performance assessments and the course work in the assigned curriculum areas as specified on the Required Graduation Credit Distribution chart on the following page.

Students have the ultimate responsibility of meeting all graduation requirements. You should periodically check your credit status and consult with your school counselor if you have any questions. Credit status can be checked on Parent Portal.

(2) Performance Assessments. All students are required to successfully complete both the Ninth Grade Performance Assessment and the High School Career Plan (formerly the Graduation Project). Upon successful completion of each performance assessment, students will receive .5 credit for each assessment.

(3) Core Assessments. Each student is required to complete core assessments in math, science, English and social studies that verify achievement of academic standards at the proficient level or above. **Core Assessments may have to be used to determine graduation status if the student fails to achieve a score of Proficient or better in grade 11 (or grade 12 retest) on the Pennsylvania System of State Assessment (PSSA).**

For more information on Core Assessments, students and parents are referred to the Core Assessments Booklet. Copies are available in the high school principal's office.

(4) Keystone Exams. The Keystone Exams are end-of-course assessments designed to assess proficiency in the subject areas of Algebra I, Algebra II, Geometry, Literature, English Composition, Biology, Chemistry, U.S. History, World History, and Civics and Government. The Keystone Exams are one component of Pennsylvania's new system of high school graduation requirements. Keystone Exams will help school districts guide students toward meeting state standards—standards aligned with expectations for success in college and the workplace. For the graduating classes of 2015 and 2016, students must demonstrate proficiency on the Algebra I, Biology, Literature, and English Composition Keystone Exams. Students who are not proficient on an exam are permitted to retake the exam until they demonstrate proficiency. If the Keystone Exam for a specific class is not available when a student completes the class, that student is exempt from this requirement.

Summer School Courses

Summer school courses will be offered for graduation credit if there are enough registrants. Students who wish to accelerate the mathematics course sequence or repeat a course not successfully completed during the regular school term may fulfill certain graduation requirements by attending summer school. **Note: Some ninth**

grade courses, such as English and social studies, are not offered in high school, making summer school a requirement for students who fail these courses.

Credit by Alternative Methods

Students may request credit by alternative methods for a planned course through evaluation, college courses, private tutoring, or other educational experiences. Details are specified in School Board Policies 217.1, 217.2, 217.3, and 217.4.

Credit by alternative methods requires an application and approval *in advance* by parents, specified school staff members, and the principal. See your counselor for details. **A weighted grade will not be given for credit through alternative methods.**

**Required Graduation Credit Distribution
For the Class of 2013 and 2014**

Subject	Standard Diploma	MBIT/Standard Diploma	Scholar's Diploma
English	4.0	4.0	4.0
Mathematics	4.0	4.0	4.0
Science	3.00	3.00	4.00
Social Studies	4.00	4.00	4.00
World Language			2.00
Electives	10.75	11.75	8.75
PE/Health	1.5	.5	1.5
Performance Assessment	1.00	1.00	1.00
Total Credits	28.25	28.25	29.25

A minimum of one credit per year is required in English and Social Studies. Please refer to the graph in the subject section of this guide for the courses that will meet these yearly requirements.

The Scholar's Diploma requires a cumulative 3.2 GPA. Credits must be earned in at least three Advanced Placement Courses.

Electives include all subject areas. When a requirement in a specific area has been satisfied, any additional courses taken in that subject area will apply toward the Elective credit requirement. For example, if a student completed 4 credits in science the last course taken applies to the Elective requirement.

**Required Graduation Credit Distribution
Beginning with the Class of 2015**

Subject	Standard Diploma	MBIT/Standard Diploma	Scholar's Diploma
English	4.0	4.0	4.0
Mathematics	4.0	4.0	4.0
Science	3.00	3.00	4.00
Social Studies	4.00	4.00	4.00
World Language			2.00
Electives	10.75	11.75	8.75
PE/Health	1.0	.5	1.0
Performance Assessment	1.00	1.00	1.00
Total Credits	27.75	28.25	28.75

A minimum of one credit per year is required in English and Social Studies. Please refer to the graph in the subject section of this guide for the courses that will meet these yearly requirements.

The Scholar's Diploma requires a cumulative 3.2 GPA. Credits must be earned in at least three Advanced Placement Courses.

Electives include all subject areas. When a requirement in a specific area has been satisfied, any additional courses taken in that subject area will apply toward the Elective credit requirement. For example, if a student completed 4 credits in science the last course taken applies to the Elective requirement.

Special Education

The Individual Education Plan (IEP) developed by parents and school personnel outlines the program for students in special education. The IEP describes both the regular education and special education courses in which students should enroll. A transition plan is also part of each student's IEP. The purpose of this plan is to outline the steps being taken to assist in student preparation for life after graduation.

Students involved in special education may also attend Middle Bucks Institute of Technology. Students interested in a Middle Bucks program should talk to their counselor and special education teachers. Special education students may also participate in a work-study program. Upon completion of the senior high special education program, students will be recommended for graduation with a Central Bucks diploma.

Gifted Education (PEN)

PEN, or Program for Enrichment, is a program for students who have been identified as gifted. The PEN program is described in detail under course descriptions.

Transfer Students

When a student transfers to Central Bucks, the counselor will evaluate the student's transcript to determine which course credits apply to the district's graduation requirements. Grades of the transfer courses will be listed according to the grading scale of the transferring school. **The district will weight grades from another school system only for courses that are also weighted-grade courses in Central Bucks or any AP course.**

Advanced Placement Courses

Students who take Advanced Placement courses should plan to take the appropriate AP examination. Please read the information about AP Tests in *Planning for College*.

Grades and Quality Points

Report Cards and Interim Progress Reports are issued four times each year. Letter grades are assigned the following quality points for computing grade point average:

A	= 4.0	B-	= 2.6	D+	= 1.4
A-	= 3.6	C+	= 2.4	D	= 1.0
B+	= 3.4	C	= 2.0	D-	= .6
B	= 3.0	C-	= 1.6	F	= 0

Honor Roll Criteria

Honor Roll: 3.0 Grade Point Average

High Honor Roll: 3.6 Grade Point Average

Distinguished Honor Roll: 4.0 Grade Point Average

Weighted Grades

Weighted grades are designed to encourage academically able students to select the most rigorous courses. Students may earn additional quality points in advanced and honors level courses.

The student who earns a grade of A in an Advanced Placement course will receive 5 quality points instead of 4, a B grade earns 4 points instead of 3, a C earns 3 points instead of 2, and a D earns 2 points instead of 1. No credit will be given for a failing grade.

All honors courses in grades 10-12 are weighted by .25. The student who earns a grade of A in an Honors course will receive 4.25 quality points instead of 4, a B grade earns 3.25 quality points instead of 3, a C earns 2.25 instead of 2, and a D earns 1.25 quality points instead of 1. No credit will be given for a failing grade.

Student Recognition for Graduates

Only students who have been actively enrolled in an approved secondary school for the four years prior to graduation and have met the academic requirements established by Central Bucks School District will be eligible for consideration for valedictorian and salutatorian.

Students receiving this honor will be notified by the principal on the morning of graduation. The valedictorian and salutatorian shall be recognized at the graduation ceremonies at their respective high schools.

It shall be the responsibility of each high school principal to select student speakers for the graduation ceremony through an audition process. Each high school shall establish a graduation speaker selection panel comprised of professional staff for the express purpose of selecting two student speakers for graduation. Prospective student speakers must submit written speeches and audition before the graduation speaker selection panel. The high school panels will develop a common rubric to be used for the selection of the speakers. Recommendation for speakers made by the panel shall be final.

On the last day of school, the principal and the coordinator will review students for high academic performance according to the following system:

Cum Laude — 3.7 cumulative G.P.A.

Magna Cum Laude — 3.9 cumulative G.P.A.

Summa Cum Laude — 4.1 cumulative G.P.A.

A student earning a cumulative grade point average according to the above categories will receive a diploma seal indicating a graduating status of Cum Laude, Magna Cum Laude, or Summa Cum Laude. Cumulative grade point averages are calculated using weighted and non-weighted grades.

Early Admission to College

In rare cases, qualified students may gain admission to college following their junior year. Central Bucks will grant a diploma to these students when they successfully complete their freshman year of college, provided all CB graduation requirements have been met. See Policy 217.2 for information about requesting credit for college courses.

College Athletic Eligibility

Students planning to participate in Division 1 or 2 college athletics should be aware of NCAA academic requirements. High school course selection determines whether or not students will be able to play sports in those colleges. Students should contact their counselor or coach for specific details. **It is the student's responsibility to determine if his/her course work meets NCAA requirements. You may access NCAA approved courses online through the NCAA Eligibility Center Online at www.eligibilitycenter.org**

Foreign Exchange Programs

Details regarding credit and graduation requirements must be carefully arranged with your school counselor if foreign study is being considered.

Students cannot assume that credits will be obtained through foreign study. Because of the difficulty of earning enough credits for graduation through foreign study, it is recommended that students participate in a foreign exchange program **after** graduation from high school.

Early Completion of Graduation Requirements

Students who have completed all graduation requirements, **including completion of the High School Career Plan (Performance Assessment) credit**, by the end of the second marking period of their senior year may leave school with parent permission. These students will receive their diplomas with the rest of the senior class at commencement in June.

For the Classes of 2013 and 2014, since it is not possible to earn 28.25 credits in school by the end of the 2nd marking period of senior year, students who wish to graduate early must choose to take courses outside of school at their own expense. **Careful planning with your school counselor is essential. Students must have their plans reviewed by their counselor and principal and students must request the early graduation option by May of their junior year.** The plan should give reasons for the early release and explain how the student's time will be used productively. Students requesting approval for senior release must maintain full-time student status during their first semester. **Students are not permitted to leave at the end of the third marking period.**

Parent Portal

Parents and students (high school only) have the ability to log into the Parent Portal feature of our Infinite Campus student system to see the latest information regarding their students. Parents and students can view their schedule, email teachers, and scroll down to view the current progress of their grades within a particular course-section based on the latest scores entered by their teacher for their assignments/test/projects.

Information about student's attendance record, immunizations, assessment scores from PSSA tests, family address, and phone information is also available through the portal. In addition, parents and students can print out their own copies of their schedules, unofficial transcripts, and report cards. High school students can track their credits completed towards their high school graduation requirements through the Graduation Planner. Students in grades 9-11 can use the Infinite Campus Portal to login and select their requested courses for the upcoming school year during January of the current school year. For more information on the Parent Portal feature, refer to the Parent Resources section of our district website.

Middle Bucks Institute of Technology (Grades 9-12)

Middle Bucks Institute of Technology offers a complete array of career, technical, and preprofessional courses to enhance the academic program of all students. The Middle Bucks Campus is located on Old York Road in Jamison, Warwick Township. The school is operated jointly by four participating school districts: Centennial, Central Bucks, Council Rock, and New Hope/Solebury. The school provides both a morning and afternoon program with students spending the other half of the day at their high school, where they continue to play an integral role, studying their required subjects and participating in co-curricular and interscholastic activities. Students entering 9th (with special permission), 10th, 11th, or 12th grades are eligible to apply for admission. Transportation to Middle Bucks is provided by the school district.

Students who attend MBIT will fulfill their physical education requirements for graduation (0.5 credits) in their 9th grade year. Students who drop MBIT and return to their home school full time must complete the required PE credits for a Standard Diploma. Students will complete their Career Plan (Graduation Project) through their home schools.

Variety of Career Development Experiences

Depending on individual career plans and goals, students may enroll for one semester (18 weeks) or for one, two, three, or four-year experiences. Students whose career plans include college will find any of the career programs to be meaningful and appropriate enhancements to a college prep curriculum. Middle Bucks also offers many technical programs ideal for the employment-bound student.

All programs provide internship, clinical, or other work-based experiences in business and industry. Partnership agreements are in place for advanced credit in associate and/or baccalaureate programs at Bucks County Community College, Delaware Valley College, Drexel University, Gwynedd Mercy College, Penn State University, and Pennsylvania College of Technology, a Penn State affiliate.

Admission

Students must complete a Middle Bucks application to be considered for admission. Selection is based on completion of selected prerequisites, aptitude and achievement scores, interest inventories, attendance records, behavior patterns, emotional stability, and staff recommendations. Selected programs require prerequisites. Applications may be obtained from your school counselor, by calling Middle Bucks Institute of Technology at 215-343-2480, or by visiting www.mbit.org

Assessment

Assessment services are intended to help students make career decisions by identifying their technical aptitudes and interests and will be offered to students in each of the four sending districts. A testing center has been created at MBIT with staff trained in test administration and interpretation. For more information, or to have your child tested, please contact either your child's school counselor or MBIT's school counselor.

The Educational Program

The educational program at Middle Bucks Institute of Technology is organized into ten career clusters and twenty-one career pathways (i.e., major courses of study). Typically, students enroll in one career pathway as their major field of study and then complete a core set of courses common to the career cluster and a highly rigorous technical sequence of courses related to their career pathway. Students may complete additional specialized courses as they advance beyond standard secondary curriculum. The career cluster model is recognized as one of the most effective educational initiatives for preparing young people for the new economy.

MBIT Career Clusters and Pathways

Architecture & Construction Career Cluster Pathways:

- Building Trades Occupations
- Construction Carpentry
- Drafting & Design Technology
- Electrical & Network Cabling
- HVAC & Plumbing Technology
- Practical Environmental Landscaping

Arts, A/V Technology & Communications Career Cluster Pathways:

- Commercial Art & Design
- Multimedia Technology

Health Science Career Cluster Pathways:

- Dental Occupations
- Health Occupations
- Health Sciences
- *Seniors: Penn State University/MBIT Dual Enrollment Courses

Hospitality & Tourism Career Cluster Pathway:

- Culinary Arts

Human Services Career Cluster Pathways:

- Cosmetology
- Early Childhood Care & Education

Information Technology Career Cluster Pathways:

- Networking & Operating Systems Security
- Web Page, Digital Multimedia, & Information Resources Design

Law, Public Safety & Security Career Cluster Pathway:

- Public Safety

Manufacturing Career Cluster Pathway:

- Welding Technology

Science, Technology, Engineering, & Mathematics Career Cluster Pathways:

- Engineering Related Technology
- *Seniors: Penn State University/MBIT Dual Enrollment Courses

Transportation, Distribution, & Logistics Career Cluster Pathways:

- Automotive Collision Technology
- Automotive Technology

*Penn State tuition for these classes is the responsibility of the parent.

Planning for College

Students often want to know how they can make sure they will be accepted to the college of their choice and how they can prepare for college work. Although there is no guarantee that a student will be accepted by a particular college, the next few pages offer proven ways to better your chances for acceptance at selective colleges, along with sound advice on how to give yourself the best possible preparation for the rigors of college work.

Go for the Challenge

Selecting appropriate courses and a challenging academic program is the first step in planning for college. Consult the Recommended Course Sequences charts for appropriate English, Math, Science, Social Studies and World Language courses, and read the section on course selection under General Information. Plan as rigorous a program as you can within your abilities.

Naviance

Naviance is a tool that is very helpful in post-secondary planning. Naviance, a web-based service designed especially for students and parents, contains a program called Family Connection that students use to help in making decisions about colleges and careers. Family Connection is linked with Counselor's Office, a service that school counselors use to track and analyze data about college and career plans. It provides information that is specific to our high schools. This tool will enable students to get involved in the planning and advising process, build a resume, complete on-line surveys, manage timelines and deadlines for making decisions about colleges and careers, and register for college visits. Each student will be issued a registration code for Naviance for a personal Naviance account.

Academics Should Come First

Give your studies your maximum effort. Although all phases of your high school record are considered for college admission, scholastic achievement in challenging courses is the single most important criterion. College admission officers have learned that a student's quality of work in high school is the best predictor of success in college.

Maximum effort means more than doing your homework, completing course assignments on time, and studying for tests. It means asking for help from your teachers if you are having difficulty or if you have missed classes because of illness. **It means making sure that athletics, a part-time job, or extra-curricular involvements do not interfere with school work.**

It means reviewing class work periodically, not just the night before a test. It means reading for pleasure, as well as the books assigned in class, and keeping up with news and current events.

PSAT

Students should plan to take the PSAT as sophomores and juniors. The PSAT will give you valuable experience in preparing for the more important SAT exam. Sophomores who have taken or are taking Geometry are encouraged to take the PSAT for practice. **Scores on the PSAT taken by juniors are used to determine National Merit Scholarship semifinalists and commended students**

for the following school year. For this reason, students should be sure to take the test in their junior year even if they have taken a practice test as sophomores.

SAT

Colleges consider your scores on the SAT. Colleges may also look at results of SAT Subject Tests and Advanced Placement Tests, where applicable. More selective colleges may require students to take one or more SAT Subject Tests. These tests may also be used for placement in college courses. Please make sure that you have your scores sent to your high school. Visit www.collegeboard.com for more information and online registration.

ACT

Some students may choose to take the ACT. All colleges accept ACT scores for consideration in addition to (or in place of) both SAT and SAT Subject Tests. Visit www.actstudent.org for more information and online registration.

Testing Information for PSAT/SAT/ACT/AP

	PSAT	SAT	ACT	AP
Site	All 3 high schools	CB East & CB South	CB South	All 3 high schools
Site Code	None needed	East 39-162 South 39-718	South 218270	None needed
Dates	October only	Multiple times every year	October and April	First 2 weeks of May
Appropriate Grade	10 th & 11 th	11 th & 12 th	11 th & 12 th	10 th , 11 th & 12 th

CEEB Code

East 390488 West 391045 South 394992

CEEB codes must be entered whenever a student registers for the SAT or ACT.

Test Preparation is Key

Students should not take the PSAT, SAT, or ACT without careful preparation. No student should take the SAT or ACT without completing Algebra 1, Algebra 2/Trigonometry, and Geometry/Trig 2; these skills are required for the math portion of the test. *SAT Preparation: Vocabulary and Reading Comprehension Skills* and *SAT Math Preparation* may also be helpful.

ePrep, a computer-based SAT and ACT review program, is available free of charge in Central Bucks high schools. Contact the school's librarian or your counselor for further information.

At the very least, students should carefully read the PSAT, SAT, and ACT books prepared by the testing services and provided by the guidance office. The books contain valuable test-taking tips and information, along with sample problems.

Take the AP Test as Part of Your AP Course

Students who take Advanced Placement courses should plan to take the appropriate Advanced Placement Exam. (Exams are given at all three high schools.) When you take the AP exam, you can compare your ability with that of students across the country. AP test scores are not placed on the high school transcript. However, good AP scores will reflect well on your academic abilities when colleges consider your high school program.

If you score high enough on the AP Exam (qualifying scores vary among colleges), many colleges will award college credit or allow you to skip the beginning level of a course sequence.

Students sometime hesitate to take the AP exam because they intend to take the beginning course in college, no matter how well they may score on the exam—especially when the college course is in the area of their intended major. Even if you achieve a high AP score, you can still take the beginning courses you want in college. No college will require that you skip a course.

Class Rank and GPA

Class rank is not reported to colleges for admission purposes, but the district does report the student’s cumulative grade-point average (GPA). The GPA is based on grades from all classes taken in grades 9–12.

Concern for grade-point average should not keep students from selecting a challenging program and should not be used as an excuse for dropping a course in order to take one that seems easier. Colleges are more interested in the academic rigor of a student’s program than they are in the student’s GPA.

Plan a Well-Rounded Program

College admission officers also look at the degree to which a student has contributed to the life of the school or community.

If you are planning to apply to highly selective schools, it’s essential to have something that will set you apart from the thousands of other applicants who also have good grades and high SAT or ACT scores. An outstanding admissions interview, especially thoughtful and well-written answers to essay questions on your application, or a significant project can make a difference.

Depth in your activities is also important; the fact that you were responsible for a complete redesign of your student newspaper, for example, would mean more than just listing “school newspaper” on your application. You should also mention special talents, abilities, leadership, achievements, or experiences that might not be included in your high school record, such as Scouting honors, extensive travel, fluency in another language, or ability in a non-school activity, such as ballet, skating, or gymnastics.

Gather Information

Contact colleges for applications and information, including financial aid and early-decision requests. Find out all you can about colleges and the application process. School counselors are your best source of information about college selections, admissions procedures, and testing schedules. Students should talk to counselors regularly and keep them informed of plans. Students should follow the recommended milestones in Naviance.

Both you and your parents should plan to attend college information programs provided by the guidance departments, along with the district College Fair, which is scheduled each spring. Colleges also send representatives to each high school throughout the fall to meet with interested students. Information is available in the guidance office and on the guidance webpage of each high school website.

College Visits

It is also important to visit the colleges that interest you so you can schedule interviews with admissions counselors and get a real idea of what the school and campus are like. Come to college interviews on time, appropriately dressed, and prepared with thoughtful questions. Be sure to send a letter of thanks after the interview.

Complete Applications Carefully

When applying for college, students are often overwhelmed by applications, especially those that ask for extensive responses to essay questions. Be sure to give yourself plenty of time to fill them out. **Students are ultimately responsible for meeting all application deadlines.** Take time with essay questions. Revise and edit your responses and have someone proofread them before you submit them. Tips for completing the college essay can be found in each high school’s guidance office.

Transcripts

Official transcripts must come from the Guidance Office, not from the student. **Please note** that transcripts will contain grades for all courses taken in grades 9–12. The student’s GPA is based on grades in courses taken in grades 9–12.

A school profile and transcript supplement accompanies each transcript. Students must submit a **completed Transcript Request Form** (available online), a **secondary school report form**, and **any other form required by the individual college**, and an **envelope with sufficient postage addressed to the college.**

Students who complete their applications online must also complete a Transcript Request Form in order to have an official transcript sent to the college.

It takes time for office staff to prepare your transcript, especially when hundreds of students are applying to college at the same time. **Please allow at least fifteen SCHOOL days —three weeks— for your Transcript Request to be processed.**

Many colleges are beginning to accept electronic transfer of college application documents. The CB high schools will use this method of sending transcripts and other supporting documents when accepted electronically by individual colleges. This will be done through eDocs, our Naviance web program. Students are required to create accounts for linked websites.

Don’t forget to request that SAT or ACT scores be sent to the colleges to which you are applying. Although you may request that scores will appear on your transcript, some colleges require that results be sent directly from the testing service.

Once you have completed an application, be sure to attach a check and any supporting documentation (essays, writing samples, etc.) and send it directly to the college. **Do not submit your application package to the Guidance Office, unless specified by the college.**

College Recommendations

When personal or teacher references are required, ask the permission of the individuals whose names you intend to give. **Don't ask teachers, counselors, or community members to write recommendations for you at the last minute**—it's not fair to them, and a hastily written recommendation will not help your application.

Central Bucks teachers may now submit college recommendations electronically through Naviance. Students should check with their counselor for specific procedures to follow for requesting teacher and counselor recommendations.

Financial Aid

Choose the best college you and your family can afford. For many students this means exploring all options for financial aid. Financial aid packages include grants, which are based on student need; scholarships, which are awarded on the basis of ability alone or

ability combined with need; work-study programs; and low-interest student loans, which must be repaid after graduation. See your school counselor for information about how to apply for financial aid. Contact the financial aid office of any college to which you are applying for specific policies.

Along with filling out the required forms for college financial aid, you should explore all other scholarship opportunities. Some scholarships are based on need, some on academic achievement or special talent, and some are even more specialized. Your counselor, Naviance, and Financial Aid Night in the Fall can help you with scholarship information. Students must apply online at www.fafsa.ed.gov for consideration for financial aid.

Scholarship Information

Scholarships announcements and college information are provided throughout the year through the guidance office. Students should check Naviance for a list of scholarships.

NINTH GRADE COURSES

ART

8251 Drawing and Painting 1 (.5 credit)

This course is designed for all students who enjoy two-dimensional work. Emphasis is placed on developing basic drawing and painting skills and techniques. A variety of media will be used, including drawing pencils, pastels, charcoal, crayon, markers, ink, brush and ink, watercolors, and opaque media.

The fundamentals of composition as found in the elements and principles of design will be used when drawing and painting from life and imagination, using realistic and abstract themes. Art history, art criticism, and aesthetics will be integrated into all units of study.

8954 Three-Dimensional Design (.5 credit)

This course introduces students to three-dimensional art through the integration of concepts and skills associated with sculpture, crafts, and industrial design. Students will be exposed to a wide range of concepts, media, and techniques, as well as art history and current trends in three-dimensional design. Students will create a variety of projects using materials such as metal, clay, wax, and wood.

Through individual attention, small-group instruction, lecture, and demonstration, students will develop creative ideas and refine artistic skills. Individual and group critiques will provide students with a means to develop aesthetic standards and a more critical approach to art.

8360 Introduction to Ceramics (.5 credit)

This is a beginning level course that emphasizes the application of two- and three-dimensional design principles in the media of ceramics. Students will focus on hand-built methods of ceramic production, while producing a wide variety of functional and decorative pieces.

Students will also explore the significance of clay to human development in primitive cultures through their study of Art History, Art Criticism, Aesthetics, and Philosophy. A variety of topics and experiences will provide students with a foundation for further in-depth course work in ceramics.

This course is not required in order to take Ceramics 1, nor does it replace Ceramics 1 as the prerequisite for Ceramics 2.

A fee of \$7.50 will be charged for instructional materials used in projects kept by the student.

8461 Photography 1 Lenape Only (.5 credit)

Students will study the basic principles of exposing, developing, and printing 35mm black and white film. Students will explore

some of the photographic possibilities using a SLR 35mm film camera with manual controls. Care and use of a camera and darkroom equipment and the fundamentals of good photography will be emphasized. Cultural influences on the artist/photographer and historical development of the media will be studied. Included in this course of study will be an introduction of digital photography techniques and its parallels to film photography.

Students will purchase their own film, photographic papers, and various other photographic supplies at an approximate cost of \$35. **Each student MUST have use of a 35 mm camera with MANUALLY ADJUSTABLE controls for focus, aperture, and shutter speed.**

BUSINESS AND COMPUTER APPLICATIONS

5668 High School and College Computer Skills (.5 credit)

This course is uniquely designed for students preparing for success in high school, college, and beyond through efficient and proficient use of computer software. Students will experience keyboarding, word processing, desktop publishing, presentations, spreadsheets, and databases to raise the quality and depth of what they do—all through an integrated approach. Higher levels of online research, simulations, and web 2.0 tools are contemporary elements that flow naturally into this dynamic, hands-on course.

5525 Web Page Design (.5 credit)

This course centers on digital media including web page design and a variety of photo editing techniques. Students will learn the basics of designing and developing a website. Design issues specific to web-based presentations will be utilized including the application of different graphics, colors, web page fonts, and the use of CSS formats. Effective web page layout and navigation techniques will be explored and applied. Web 2.0 tools will be used.

ENGLISH

English 9 is a required course for high school graduation. There are no substitutes for this core course.

0900 Advanced English 9

0920 Academic English 9 (1 credit)

The English 9 course integrates reading, writing, researching, speaking and thinking skills. Students will gain an understanding of the craft of literature by beginning to examine author's craft and the use of various literary devices across literary genres. Students will analyze specific literary elements, namely theme, point of view, and indirect characterization. Students will also begin introductory literary analysis and experiment with narrative writing techniques. A core of classic literature is balanced with contemporary and culturally diverse fiction and nonfiction selections in order to better understand how social, historical, political, cultural, and/or geographical contexts influence writing.

The advanced course of study includes variations in materials, tasks, and assessments for advanced level classes. Students in this course are expected to be avid readers and sophisticated writers. In this course, students will encounter challenging texts, discussions, and writing requirements.

**0970, 0980, 0990 English 9
(1 credit)**

These courses are designed for students with special needs.

FAMILY AND CONSUMER SCIENCES

**6953 Sewing
(.5 credit)**

Students with a range of sewing abilities will find success in this course. We will review new apparel trends and how they affect everyday clothing choices. Basic sewing skills will be reviewed and a challenging set of new skills will be introduced. Students complete a variety of projects to demonstrate and apply new knowledge and skills.

**6954 Cooking
(.5 credit)**

This year-long class focuses on how to plan and eat in order to stay vibrant and healthy. The course includes a review of basic cooking skills and moves through units representing the routine meals of a single day. Cooking experiences include traditional recipes from a variety of cultures, as well as exciting cook-off challenges.

HEALTH AND PHYSICAL EDUCATION

**7950 Fitness/Health 9
(.5 credit)**

Health-related fitness is a goal for all students. Knowledge, team work, cooperation, decision-making skills, sportsmanship, and leadership skills are emphasized as objectives for success. National Fitness Tests are administered, and all students are encouraged to achieve the fiftieth percentile by ninth grade.

Areas of study include: Substance Abuse, Growth and Development (Human Sexuality), Mental Health, Nutrition, Physical Fitness, and Personal Hygiene.

MATHEMATICS

Because of the sequential development of the mathematics curriculum, students must attain the prerequisites in the previous course before advancing to a more difficult level. The prerequisite for each course has been developed with the sole purpose of ensuring students have the skills they need to be successful. These prerequisites must be met before entering the course. Students who do not meet the requirement can elect to attend summer school to reach the prerequisite or retake the course during the next school year.

2900 Geometry/Trigonometry 2

(For students who completed Algebra 2/Trig in 8th grade)

(1 credit)

This high school-level course is designed for students with outstanding mathematical ability. Geometry is a modern development of Euclidean Geometry covering congruency, similarity, parallelism, perpendicularity, areas, and volumes. Concepts from coordinate geometry are reviewed with an emphasis on the integration of algebra and geometry.

Trigonometry topics include indirect measurement, the Laws of Sines and Cosines, and theories/applications relating to tangents, apothems, and inscribed polygons.

Prerequisite: Algebra 2/Trigonometry, B- (80%) or better.

2901 Geometry/Trigonometry 1

(For students who completed Accelerated Algebra 1 in 8th grade)

(1 credit)

This high school-level course is designed for students with outstanding mathematical ability. Geometry is a modern development of Euclidean Geometry covering congruency, similarity, parallelism, perpendicularity, areas, and volumes. Concepts from coordinate geometry are reviewed with an emphasis on the integration of algebra and geometry. Trigonometry topics include indirect measurement, the Laws of Sines and Cosines, and theories/applications relating to tangents, apothems, and inscribed polygons.

Prerequisite: Accelerated Algebra 1, B- (80%) or better.

2915 Accelerated Algebra 1

(1 credit)

Accelerated Algebra 1 applies previously learned arithmetic skills to expressions involving variables. Fundamental operations and properties are studied. Major topics include linear equations and inequalities in one and two variables, exponents and polynomials, factoring, quadratic equations, radicals, rational expressions and statistics and data analysis. Problem solving, communication and reasoning are emphasized throughout the course. Students in this class will take the Algebra 1 Keystone Exam.

Prerequisite: Pre-Algebra, A- (90%) or better and teacher recommendation.

2916 Algebra 1

(1 credit)

Algebra 1 builds on the concepts studied in Introduction to Algebra. This is the second course in an in-depth two year study of formal Algebra. The fundamental operations and their properties are studied. Topics include: linear functions and inequalities, systems of equations, exponents and polynomials, factoring polynomials, rational expressions, radicals and quadratic functions. Problem solving, application, communication and reasoning are emphasized throughout the course. Students in this class will take the Algebra 1 Keystone Exam.

Criteria for placement: Introduction to Algebra, grade of C- (70%) or better for the year.

2920 Introduction to Algebra (1 credit)

Introduction to Algebra builds on the concepts introduced in Pre-algebra. This is the first course in an in-depth two year study of Algebra. The fundamental operations and their properties are studied. Topics include: solving linear equations, linear functions, factors, exponents, polynomial expressions, and statistics and data analysis. Problem solving, communication and reasoning are emphasized throughout the course.

2970, 2980, 2990 Mathematics 9 (1 credit)

These courses are designed for students with special needs.

MUSIC

8965 Band 9 (.5 credit)

This course is designed for ninth graders who play band instruments in the woodwind, brass, and percussion families. The goal of this full-year program is to further develop musical skills by providing a wide range of musical experiences. Students will learn the techniques needed to achieve higher levels of music performance. Both concert and marching opportunities are scheduled.

8967 Chorus 9 (.5 credit)

This course is designed for ninth graders who enjoy singing and choose to enroll in a full-year program. Emphasis is placed on developing comprehensive musicianship through the use of choral literature representing a variety of styles, forms, and cultures, including both sacred and secular texts. The goal is for students to perform artistically at their ability level while developing skills in vocal technique, sight-reading, basic music theory, and music history literature.

8966 Orchestra 9 (.5 credit)

This course is designed for ninth graders who have a minimum of two years of study of violin, viola, cello, or string bass. This requirement may be waived pending an audition.

The goal of this full-year program is to further develop musical skills while providing a variety of musical experiences. Students will learn the techniques needed to achieve higher levels of performance.

PEN (Gifted Program)

9901 PEN Seminar 9 (.5 credit)

This course provides students identified as gifted with the opportunity to approach texts, ideas, and the world philosophically, critically, and analytically. Class readings are given meaning through interpretive and expressive writing, discussion, and the use of emerging technologies. Intellectually inquisitive students will explore language and thought through an interdisciplinary approach to learning within the format of a seminar.

At the beginning of the course, students may choose between taking PEN for a letter grade or as a pass/fail course. In either case, credit will be awarded if the course is passed.

READING

4940 Reading 9 (1 credit)

This course is designed for students who have not mastered basic reading, writing, and study skills. Students will be involved in all aspects of communication: reading, literary analysis, writing, speaking, listening, language, and study and research skills. The course will combine whole group instruction with self-selected topics for reading and writing. Computers will be an important resource for developing writing and higher level thinking skills.

This course offers elective credit toward graduation.

4970, 4980, 4990 Reading 9 (1 credit)

These courses are designed for students with special needs.

SCIENCE

3900 Advanced Science 9 (1 credit)

Ninth grade Advanced Science is an integrated course. Students will study the same core concepts as the 3920 course (see below). Students are introduced to topics in life science, physical science, and earth science. Students will use problem-solving strategies, observation, data collection, and analysis while studying concepts in the natural world.

The advanced course of study includes variations in materials, tasks, and assessments. Students will be required to read, analyze, and react in written form to science writers who deal with the main themes of this course: change, adaptation, and ecology. Writers may include Lynn Margulis, Jonathan Weiner, Carl Sagan, and Isaac Asimov, among others. In addition, simulations and micro-worlds linked to these themes will be used in the course.

Students will be admitted according to department criteria, teacher recommendation, and a grade of *A-* or better in eighth grade science.

3920 Academic Science 9 (1 credit)

Academic Science is an integration of earth, life, and physical science. It is the study of geology and the forces that shape our planet: plate tectonics, earthquakes, volcanoes; how climate and topography have generated the biomes of our earth; how life has changed and adapted to these diverse habitats. Topics also include botany, evolution, geology, invertebrate and vertebrate physiology, and ecology.

Active student participation through questioning, labs centered around the scientific method, simulations, scientific readings, and problem-based activities will form the core of instruction. This course is intended for students wishing to meet college entrance requirements.

**3970, 3980, 3990 Science 9
(1 credit)**

These courses are designed for students with special needs.

SOCIAL STUDIES

United States History is a required course for high school graduation. There are no substitutes for this core course.

**1900 Advanced United States History
(1 credit)**

United States History will cover the content of American history between 1890 and the present. Topics will follow those in Academic United States History.

This course is designed for students who have demonstrated proficiency in social studies content and skills as well as language arts skills. Students will be expected to complete significantly more reading, informative and persuasive writing, and research projects than in the standard course. Some of the educational materials will be on a higher level than those used in the standard course.

**1920 Academic United States History
(1 credit)**

United States History continues work begun in Grade 8 and includes the history of the United States from 1890 to the present. Units include Industrialization, America as a World Power, Great Depression and New Deal, World War II and the Cold War, The Civil Rights Movement, and Contemporary America.

**1970, 1980, 1990 United States History
(1 credit)**

These courses are designed for students with special needs.

TECHNOLOGY EDUCATION

**6949 Design and Prototyping
(.5 credit)**

Design and Prototyping is an elective course that focuses on the process of bringing a design concept to reality. Through actual construction and testing of prototypes, students gain an understanding of the entire design cycle. In this course, students evaluate their designs through experimentation. Students design and create projects within the five areas of technology. Projects vary and may include CO2 cars, rockets, gliders, mousetraps and battery powered vehicles, bridges, robotic arms, skateboards, and other structures. Students have the opportunity to work on their own projects and focus designs that interest them.

**6950 Technical Design and Graphic Illustration
(.5 credit)**

Technical Design and Graphic Illustration is an elective course that allows students to explore basic drawing techniques, computer-aided drafting, product design and development, architectural design, exploration of graphic software and solid modeling. Students interested in engineering, architecture, computer illustration, design, construction, and technology should find this course of value. Students will work on an individual basis as they utilize freehand, mechanical, and computer-aided methods of illustration.

**6952 Creative Woodworking
Unami only
(.5 credit)**

This course is a "hands on" entry level experience in woodworking. The focus is to expose students to a wide variety of processing procedures, power equipment and hand tools with the goal that students will learn life-long skills that will serve them well in career or at home. Safety habits are emphasized in everything we do. There is opportunity to add personal design aspects to most of the six planned projects. There is a small lab fee if taking this course.

**6957 Communications Technology
Tamanend only
(.5 credit)**

This course gives students hands on experience with current communications trends and devices. Students will apply communications principles while producing effective messages. Students will create projects using video production equipment and digital cameras. PhotoShop and other editing practices will be utilized to produce the final project. Students in Communication Technology will also be involved in the daily production of the school's morning show. Students will also examine the historical impact of communication technologies on society and examine future trends and career opportunities.

**6958 Engineering and Production
Not offered at Tamanend
(.5 credit)**

Engineering and Production is an elective course that allows students to work with basic design principles to create a useful consumer product using various woodworking equipment. The product will then be made in quantity in the production laboratory. Student activities will include identifying consumer needs, developing working drawings, and building prototypes for testing.

After the class chooses a product for production, the laboratory will be organized for manufacturing, including establishing an enterprise with officers, managers, and workers. Production operations, tooling, and quality control will be developed for the product.

WORLD LANGUAGE

All courses in World Languages are only offered if there is sufficient enrollment.

4501 Spanish 1 (1 credit)

The goal of first-year language is to enable students to use fundamental expressions and vocabulary in oral and written context while integrating cultural elements. This course emphasizes communicative skills, relevant grammar concepts, and reading comprehension.

CDs, DVDs, videos, workbooks, and a variety of supplementary materials are used to help achieve this goal. The department recommends a grade of C or better in the previous year's English course.

4202 French 2 4502 Spanish 2 (1 credit)

Level 2 continues language study in the same patterns as Level 1. Students experience opportunities for more advanced oral and written self-expression and related cultural elements. More advanced grammatical concepts, vocabulary, and expressions are taught in complete sentences with an emphasis on speaking and writing. CDs, DVDs, videos, workbooks, and supplementary materials are essential parts of these classes.

Prerequisite: Level 1, grade C- or better, (if the grade is C-, then a recommendation from the world language teacher is needed).

HIGH SCHOOL COURSES

ART

All courses in Art are only offered if there is sufficient enrollment.

8551 Art 1 (18 weeks, 1 credit)

This course is open to all students who are interested in beginning an exploratory study of art. Knowledge, skills, and techniques learned in grades K-8 serve as a starting point for students to develop and refine their ability to control various two- and three-dimensional media. Students will have introductory and developmental experiences in drawing, painting, printmaking, and sculpture.

Students will also be involved in an active study of Art History, with a focus on American Art. Processes and skills associated with Art Criticism, Aesthetics, and Philosophy will also be explored.

8552 Art 2 (18 weeks, 1 credit)

Students in grades 10-12 who elect this course will continue to refine skills through more advanced study of media and processes involved in drawing from direct observation, painting, printing,

drawing, and three-dimensional design, along with Art History, Criticism, and Philosophy.

Prerequisite: Art 1 or Drawing and Painting 2, C or better.

8553 Art 3 (18 weeks, 1 credit)

In this course, there will be further development of skills and knowledge in life drawing, landscape drawing, watercolor and acrylic painting, additive and/or subtractive process sculpture, advanced printmaking processes (e.g., serigraphy, etching, lithography), and three-dimensional design, along with art-related careers, Art History, Criticism, and Philosophy.

Any student considering post-high school study and/or work in any related art field is encouraged to take this course.

Prerequisite: Art 2, C or better.

8554 Art 4 (18 weeks, 1 credit)

This course is intended for students seeking to develop a more sophisticated and refined style for their artwork or for those who wish to prepare portfolios for college or employment interviews. Students will study portfolio development and interviewing processes and techniques, as well as develop individual creative solutions to problems involving advanced drawing skills, mixed media, painting, graphics, and sculpture. Art History, Criticism, and Philosophy will be integrated into all units.

Prerequisite: Art 3, C or better.

8360 Introduction to Ceramics (9 weeks, .5 credit)

This is a beginning level course that emphasizes the application of two- and three-dimensional design principles in the media of ceramics. Students will focus on hand-built methods of ceramic production, while producing a wide variety of functional and decorative pieces.

Students will also explore the significance of clay to human development in primitive cultures through their study of Art History, Art Criticism, Aesthetics, and Philosophy. A variety of topics and experiences will provide students with a foundation for further in-depth course work in ceramics.

This course is not required in order to take Ceramics 1, nor does it replace Ceramics 1 as the prerequisite for Ceramics 2.

A fee of \$7.50 will be charged for instructional materials used in projects kept by the student.

8361 Ceramics 1 (18 weeks, 1 credit)

This course is open to all students in grades 10-12 who enjoy 3-D work and would like to explore clay as a medium. Students will focus on hand-built methods of ceramic production while producing a variety of functional and decorative pieces. This course may also include a brief introduction to the potter's wheel. Glazing and various forms of surface decoration and embellishments will be introduced.

A fee of \$15.00 will be charged for instructional materials used in projects kept by the students.

8362 Ceramics 2
(18 weeks, 1 credit)

This course is open to students in all grades who want to pursue work on the potter's wheel, advanced handbuilding, and ceramic sculpture. Students will have the opportunity to design and initiate projects in these areas. Glazing will be emphasized, including some glaze theory. Art History, Criticism, and Philosophy will be included in a multicultural context.

A fee of \$15.00 will be charged for instructional materials used in projects kept by the student.

Prerequisite: Ceramics 1, C or better.

8363 Ceramics 3
(18 weeks, 1 credit)

Students will continue their study of ceramic media and design problems. Individuals will plan and analyze units of study with the instructor in order to develop skills in specific areas and knowledge. Art history, art criticism, and philosophy will be included in the study of art from the 17th century through present day. A fee of \$15.00 will be charged for instructional materials used in projects kept by the student.

Prerequisite: Ceramics 2, C or better.

8251 Drawing and Painting 1
(9 weeks, .5 credit)

This course is open to all students who enjoy two-dimensional work. Emphasis is placed on developing basic drawing and painting skills and techniques. A variety of media will be used including drawing pencils, pastels, charcoal, watercolors, and opaque media. The fundamentals of composition as found in the elements and principles of design will be used when drawing and painting from life and imagination, using realistic and abstract themes.

8252 Drawing and Painting 2
(9 weeks, .5 credit)

This course is open to students in grades 10-12 who want to advance their skills and techniques in various drawing and painting topics and media. Students may work with advanced media such as conte, pen and ink, graphite stick, colored pencil, watercolors, acrylics, and mixed media while being encouraged to develop their own expression and style. This course is of special interest to students who want more time for portfolio presentation work.

Prerequisite: Drawing and Painting 1 or Art 1, C or better.

8461 Photography 1
(9 weeks, .5 credit)

Students will study the basic principles of exposing, developing, and printing 35mm black and white film. Students will explore some of the photographic possibilities using a SLR 35mm film camera with manual controls. Care and use of a camera and darkroom equipment and the fundamentals of good photography will be emphasized. Cultural influences on the artist/photographer and historical development of the media will be studied. Included in this course of study will be an introduction of digital photography techniques and its parallels to film photography.

Students will purchase their own film, photographic papers, and various other photographic supplies at an approximate cost of \$35.

Each student MUST have use of a 35 mm camera with MANUALLY ADJUSTABLE controls for focus, aperture, and shutter speed.

8462 Photography 2
(9 weeks, .5 credit)

This course offers a continued study of specific black and white film skills with expanding technology in night/low light photography, and photo journalism. Photography 2 is designed to allow students to refine and master basic photographic techniques, allows additional darkroom time, and improvement of digital photography skills. Students will purchase their own film, photographic papers, and various other photographic supplies at an approximate cost of \$35. **Each student MUST have use of a 35 mm camera with MANUALLY ADJUSTABLE controls for focus, aperture, and shutter speed.**

Prerequisite: Photography 1, C or better.

8463 Photography 3
(9 weeks, .5 credit)

Photography 3 encourages experimentation with advanced techniques using the camera and darkroom. Further study of the artist/photographer's role in society, career exploration, and portfolio development will be pursued. Students will purchase their own film, photographic papers, and various other photographic supplies at an approximate cost of \$35. **Each student MUST have use of a 35 mm camera with MANUALLY ADJUSTABLE controls for focus, aperture, and shutter speed.**

Prerequisite: Photography 2, C or better.

8464 Photography 4
(9 weeks, .5 credit)

This course is open to students who wish to refine advanced skills using photographic equipment. Students will have maximum use of the darkroom in order to develop their own portfolio. Students will purchase their own film, photographic papers, and various other photographic supplies at an approximate cost of \$35. **Each student MUST have use of a 35 mm camera with MANUALLY ADJUSTABLE controls for focus, aperture, and shutter speed.**

Prerequisite: Photography 3, grade C or better.

8562 Computer Graphics: Illustration and Design
(9 weeks, .5 credit)

This course is intended to introduce the student to the use of the computer as a drawing and two-dimensional design tool. Students will learn how to manipulate drawing tools and options in Adobe Illustrator while working with specific design and illustration problems. Assignments will focus on the development of computer graphics skills necessary for success in the fields of advertising, animation, graphic design, illustration, and industrial design. Students taking this course must demonstrate competency in freehand drawing.

Prerequisite: Art 1 or Drawing and Painting, C or better.

8564 Digital Imaging
(9 weeks, .5 credit)

This course is designed to introduce the student to the use of the computer as a tool in the manipulation of photographic images. The student will learn how to create digital images using Adobe Photoshop to acquire, compose, alter, manipulate, and format images for commercial, fine art, and everyday use.

Students may use scanned images and/or digital photographs; however, a digital camera is not required for this course. Assign-

ments will focus on the development of computer graphics skills necessary for success in the fields of graphic design and digital imaging through a series of specific visual design problems.

8567 Introduction to 3-D Modeling and Animation (9 weeks, .5 credit)

This introductory course is designed to teach the student the basics of three-dimensional modeling and animation with the computer. Three-dimensional modeling techniques using a computerized environment will be explored through sequential assignments.

Students will learn how to create 3-D objects by manipulating lighting, atmospheric effects, camera angles and textural effects. Using principles of 2-D animation and vector paths, students will learn how to set their objects into motion.

Storyboarding, sketchbook assignments, and drawing from direct observation will help students develop effective creative solutions to the assigned projects. Bryce and Poser will be the primary software for this introductory course, with integrations of Photoshop and Illustrator for special effects.

BUSINESS AND COMPUTER APPLICATIONS

All courses in Business and Computer Applications are only offered if there is sufficient enrollment.

5160 Accounting 1 (18 weeks, 1 credit)

This first year course will provide students considering careers in the fields of Marketing, Business Administration, Finance, and Accounting with a firm foundation in accounting concepts. Students will learn the language of business, balance a checkbook, and gain an understanding of accounting practices for a sole proprietor or partnership. Course content will be combined with technology to provide real life experience through the completion of business simulations.

5260 Accounting 2 (18 weeks, 1 credit)

This course is designed to strengthen the skills necessary for students seeking a college degree in business. Students learn about payroll, including commissions, depreciation of plant assets, and other transactions. Students will also learn how to interpret reports and records of a business. Advanced principles of computerized accounting and a business simulation will be used.

Prerequisite: Accounting 1, C or better.

5161 Business Administration (9 weeks, .5 credit)

This course is designed for students who are planning on, or may be interested in, a business administration major in college. This course covers the areas of business ownership, law, production, marketing and financial management, business ethics, human resources and other management responsibilities. Students will follow a corporation through internet research, interviews, and the stock market. The course will help the undecided student make a decision about a career in business administration.

5061 Business Today (18 weeks, 1 credit)

Business Today is an introductory course that is beneficial to all students interested in learning more about their role as consumers, workers, and citizens. This course is strongly recommended for all students planning a business career. Course topics include banking, insurance, small business management, career exploration, credit, and more.

5660 Consumer Law & Business Ethics (9 weeks, .5 credit)

This course presents the principles of law that govern the activities of individuals and business. Students will learn the legal rights of consumers, as well as the legal obligations of businesses. Topics include contract law, employment rights and duties, and consumer protection. A field trip to the Bucks County Courthouse, where students will experience the US legal system first hand, will be used to reinforce course concepts. This course is valuable to both business and non-business students.

5661 Marketing & Advertising Fundamentals (9 weeks, .5 credit)

This highly interactive, hands-on course provides an overview of marketing in modern organizations. Students will learn basic concepts such as advertising, brand recognition, pricing, and competitive selling techniques. Students will be exposed to the terms, concepts, and frameworks used by practicing marketing managers and will have an opportunity to use newly acquired skills in developing and marketing an innovative product. This course provides an awareness of career opportunities and improves personal consumer knowledge.

5667 Sports & Entertainment Marketing (9 weeks, .5 credit)

Students will learn how businesses spark interest and gain profits from millions of consumers. Topics build upon introductory concepts covered in the Marketing and Advertising course and include sponsorships, licensing, event marketing, endorsements, TV commercials, and more. Computer simulations will help to expand knowledge beyond the traditional classroom setting. Topics covered will include amateur and professional sports teams, the business of entertainment, and special events.

Prerequisite: Marketing & Advertising Fundamentals, C or better.

5062 Personal Finance (9 weeks, .5 credit)

Students will learn the necessary skills to invest successfully in their financial future. This course covers topics including money management strategies, how to properly budget and save, investing in the stock market, preparing income taxes and maintaining a quality credit standing. Students will also learn about funding college, their first car, home ownership, and the long range goal of retirement. This is a practical course that teaches current financial necessities that all 10th – 12th grade students should consider.

5163 Business Computer Applications

(9 weeks, .5 credit)

This course focuses on database and spreadsheet computer application software in business and in daily life. Students will analyze and construct databases that can be sorted and queried in multiple ways. Database concepts such as layouts, architecture, security, relational capability, reliability, and management will be explored actively while using software (MS Access). Ethical implications of the use of databases will be discussed. The ability of spreadsheets to properly describe numeric information, show trends, and assist in making future decisions is a key to financial success. Spreadsheet concepts, such as types of tables, formula accuracy, macros, modeling, security, and charts, will be explored actively while using software (MS Excel). The course content will also include integration and presentation of spreadsheet and database information.

5561 Media Design

(9 weeks, .5 credit)

Media Design teaches students how to work with robust software and media to create visually effective products such as posters, menus, advertisements, newsletters, brochures as well as many other print media samples. This class provides students with a fundamental understanding of the desktop publishing field using the industry standard software, Adobe InDesign. Students will also discover advanced communication skills by using Microsoft PowerPoint to help create professional and appealing multimedia presentations. Additional topics covered in the course include and are not limited to essential design basics, advanced word processing skills, and graphic editing techniques.

Students who previously completed Desktop Publishing may not take this course.

5525 Web Page Design

(9 weeks, .5 credit)

This course centers on digital media including web page design and a variety of photo editing techniques. Students will learn the basics of designing and developing a website. Design issues specific to web-based presentations will be discussed including the application of different graphics, colors, web page fonts, and the use of CSS formats. Effective web page layout and navigation techniques will be explored and applied. Web 2.0 tools will be used.

5526 Advanced Web Page Design

(9 weeks, .5 credit)

Advanced Web Page Design takes students closer to the professional level of web design. Students will have the opportunity to create a fictitious freelance web design company and work with clients to discover, design and develop professional websites for their business, organization, or club. Students will learn professional communication, interviewing, time-management and advanced problem solving techniques. Advanced web design uses industry standard software packages including Adobe's Dreamweaver and Photoshop.

Prerequisite: Web Page Design, C or better.

5668 High School and College Computer Skills

(9 weeks, .5 credit)

This course is uniquely designed for students preparing for success in high school, college, and beyond through efficient and proficient use of computer software. Students will experience keyboarding, word processing, desktop publishing, presentations, spreadsheets, and databases to raise the quality and depth of what they do—all through an integrated approach. Higher levels of online research, simulations, and web 2.0 tools are contemporary elements that flow naturally into this dynamic, hands-on course.

Students are required to take four credits of English during grades 9-12, one English course per year. The required sequence of courses provides students with instruction in each basic area of language arts: reading, composition, literature, and oral communication.

All sophomores must take a one-credit course, English 10. Following that, English 11 and English 12 must be taken in that sequence. Advanced Placement courses may be taken in place of English 11 and/or English 12. Advanced Placement Language can only be taken in the junior year, and Advanced Placement Literature can only be selected for senior year. For students with special interest in English and communication, enrichment electives are recommended rather than the acceleration of course sequence.

English elective courses are only offered if there is sufficient enrollment.

REQUIRED ENGLISH SEQUENCES			
Grade 9	Grade 10	Grade 11	Grade 12
MOST RIGOROUS PROGRAM			
For college-bound students applying to colleges designated as most competitive. Students in the most rigorous program should also consider electives such as SAT Preparation and Debate.			
Advanced English 9	English 10: Honors Level	AP English Language and Composition	AP English Literature and Composition
ACADEMIC PROGRAM			
For the majority of college-bound students. Students in the academic program should also consider electives such as SAT Preparation and Academic Writing.			
Academic English 9	English 10: Honors Level OR English 10: Academic Level	English 11: Honors Level OR English 11: Academic Level	English 12: Honors Level OR English 12: Academic Level

Grade 10 English

0000 Honors English 10

0020 Academic English 10

(18 weeks, 1 credit)

The English 10 course focuses on analysis of text. Students will examine author's craft and the use of various literary devices across literary genres. Students will analyze how writers use style, tone, and voice to communicate an idea. Students will focus on close reading strategies in various genres to understand what tools authors use to achieve their purposes. They will examine tone and theme statements. They will learn about how different genres achieve the same purpose through different means. They will understand the conventions of reading various genres, the differences between genres, and the characteristics of different genres. They will be introduced to rhetorical analysis and literary analysis.

The course of study includes variations in materials, tasks, and assessments for each level of the class. Students in the Honors course are expected to be avid readers and sophisticated writers. In this course, students will encounter challenging texts, discussions, and writing requirements.

Honors weighted-grade course for 0000.

Grade 11 English

0110 Advanced Placement English Language & Composition

(18 weeks, 1 credit)

Students will become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts. They will produce expository, analytical, and argumentative essays that introduce a complex central idea and develop that idea with appropriate evidence drawn from primary and secondary sources, cogent explanations, and clear transitions.

A summer reading/writing assignment is required and must be completed before the start of the course.

Students taking this course should plan to take the Advanced Placement English Language Test given in May.

AP weighted-grade course.

Prerequisites: B grade or better in English 10 or recommendation of 10th grade English teacher.

0100 Honors English 11

0120 Academic English 11

(18 weeks, 1 credit)

The English 11 course is designed to equip students with the knowledge and skills to listen carefully, to evaluate arguments, to discern tone, and to analyze and implement rhetorical strategies in writing. They will read text that is selected to showcase the techniques that lead to an author's overall purpose. Students will understand that authors make stylistic choices and employ rhetorical and literary techniques based on their intentions, their subject, and their audience. Students will also craft their own writing to analyze

rhetoric and to synthesize information into a cogent argument. Students will develop a unique writing voice, create sound and logical arguments, and be able to justify their stylistic and rhetorical choices.

The course of study includes variations in materials, tasks, and assessments for each level of the class. Students in the Honors course are expected to be avid readers and sophisticated writers. Students will encounter challenging texts, discussions, and writing requirements.

Honors weighted-grade course for 0100.

Grade 12 English

0200 Advanced Placement English Literature & Composition

(27 weeks, 1.5 credits)

Students will learn how to read literature perceptively and how to express responses to it. Students will study a representative sampling of works from several genres and literary periods. Students will learn to respond to language with increasing sensitivity and discrimination.

A summer reading/writing assignment is required and must be completed before the start of the course. Students taking this course should plan to take the Advanced Placement English Test given in May.

AP weighted-grade course.

Prerequisites: B grade or better in English 11 or recommendation of English teacher.

0210 Honors English 12

0220 Academic English 12

(18 weeks, 1 credit)

Students will learn the value of literary analysis skills. Students will examine how literature mimics the human experience across different perspectives, societies, and time periods. Students will examine the interrelationships that exist between text, self, and world. Students will gain a deep understanding of the connection between text and the human experience that justifies literature as a unique and important tool for examining and understanding humanity.

The course of study includes variations in materials, tasks, and assessments for each level of the class. Students in the Honors course are expected to be avid readers and sophisticated writers. Students will encounter challenging texts, discussions, and writing requirements.

Honors weighted-grade course for 0210.

Electives

THESE COURSES PROVIDE GRADUATION CREDITS IN ELECTIVES ONLY. ENGLISH ELECTIVE COURSES ARE ONLY OFFERED IF THERE IS SUFFICIENT ENROLLMENT.

0660 Academic Writing Workshop

(9 weeks, .5 credit)

This academic writing workshop offers students the opportunity to strengthen their writing skills and receive personalized coaching in the writing process. Students will practice all steps of the writing process (planning, drafting, revising, editing, and publishing) and apply them to academic writing tasks.

Informative and persuasive paragraphs, thesis papers, comparison papers, analysis papers, and position papers will be reviewed, and students will work on academic compositions assigned in other subject areas. This course is open to students in all grade levels.

0601 Debate

(9 weeks, .5 credit)

Debate is designed to teach methods of logical thinking, argumentation, and formal debating procedures and skills. Students will learn the fundamentals of debate and will participate in several formal debates. Debate provides training in research, rhetoric, language skills, oratory, reasoning, politics, and philosophy. This course is especially useful for students planning a career in law, government, or business.

Note: Debate may be taken more than once for elective credit with teacher approval.

0661 SAT Preparation: Vocabulary, Reading Comprehension and Analysis, and Written Expression

(9 weeks, .5 credit)

This SAT Preparation course is designed to improve a student's skills in vocabulary, reading comprehension, reading analysis, essay writing, and grammar/conventions. This course presents students with the opportunity to prepare for SAT, which includes a significant written expression component — an essay as well as writing-based multiple choice questions. The course also helps students sharpen their test-taking skills.

0662 Journalism

(9 weeks, .5 credit)

Journalism is designed to teach techniques of journalistic writing as found in the news story, the editorial, the feature story, the interview, and the sports story. Students will write these types of articles and will study examples found in various newspapers. The course includes copy reading and proofreading, headline composition, page makeup, and word processing. Independent effort is demanded of journalism students. Interviews must often be conducted and articles researched and written outside of class time.

Note: Journalism may be taken more than once for elective credit with teacher approval.

0665 Creative Writing

(9 weeks, .5 credit)

Creative Writing is designed to provide students with an opportunity to work with a variety of creative forms: short stories, poems, reviews, essays, and one-act plays. To stimulate personal awareness and creative potential, use of a writer's journal will be established. Students are expected to produce a collection of original works. **Note: Creative Writing may be taken more than once for elective credit with teacher approval.**

0668 Theater: Acting Workshop

(9 weeks, .5 credit)

Theater: Acting Workshop introduces students to the art of acting in a workshop environment. Students will participate in various body, voice, movement, and improvisation exercises during class time. Reading, memorizing, critiquing, and reflecting are all required components of the course. Various readings will introduce students to different methods of acting, which students will then apply as they rehearse and present scenes to the class. These scenes

will be critiqued by the instructor as well as by students in the class. **Note: Theater may be taken more than once for elective credit with teacher approval.**

**0671 Shakespeare
(9 weeks, .5 credit)**

This course aims at developing an appreciation, an enjoyment, and an understanding of Shakespeare's work. Two tragedies, two comedies, and one history will be studied in depth. Class work includes the staging of scenes, reading of plays and critical essays, and writing analytical papers. **This course is offered every other year. It will be offered for 2012-2013, 2014-2015, 2016-2017, etc.**

**0672 Science Fiction
(9 weeks, .5 credit)**

This course will provide students with a survey of major novels, short stories, and poems by the masters of science fiction. These readings will form the basis for a thoughtful look at the future. **This course will be offered in the following years: 2012-2013, 2013-2014, 2015-2016, 2017-2018, etc.**

**0673 Fiction and Film
(9 weeks, .5 credit)**

Fiction and Film offers students the opportunity to compare film and text versions of the same piece of literature. In addition, students will compare films based upon similar themes and will explore use of effective film techniques as a communication form. This course is open to all grade levels.

MEDIA PRODUCTION ELECTIVES

**0674 Media Production 1
(9 weeks, .5 credit)**

Students will learn the basics of video production and how to effectively communicate a message via video. These fundamentals include *pre-production skills*, which include researching, writing scripts, and storyboarding; *production skills*, which include operating video and audio equipment, single and multi-camera production, lighting, and various crew positions; and *post-production skills*, which include editing and audio mixing.

Students will display their knowledge both in written papers and by completing several hands-on group video projects. Whether you are interested in making videos as a hobby or pursuing journalism, broadcasting, or videography as a career, this introductory course will provide the necessary basics. This class is open to all students, grades 10-12.

**0675 Media Production 2
(9 weeks, .5 credit)**

This intermediate course further explores digital video production, concentrating on the role of the producer, writer, and director, and on advanced production and post-production techniques. Students will plan, research, write, produce, and edit informational video productions for distribution to audiences in school and in the community. Students may learn the journalistic skills of broadcast news, do investigative reporting, practice on-camera talent techniques, produce and direct interview shows, or create video features. Informative and persuasive writing will be required. Study

hall and/or out-of-school time may be required. This course may be taken more than once for elective credit.

Prerequisite: C or better in Media Production 1 or instructor permission.

**0676 Media Production 3
(9 weeks, .5 credit)**

Students demonstrating high levels of communication and production skills, motivation, and ability to work independently will produce real-world products: videos made for community partners like the hospital, museums, and businesses; videos made for non-profit community groups like teen organizations; and videos made to explain and promote district educational programs and extra-curricular activities.

Projects will demand high levels of production and post-production skills. Students will engage in informational interviewing and other forms of research, organization of information, and development of creative solutions based on the information.

Outlining, scripting, and storyboarding will be necessary. Informative and persuasive writing will be required. Producers will create production schedules and timelines, organize and deploy production resources, and meet deadlines. In each project, the highest possible production standards will need to be maintained to produce as professional a product as possible. Out-of-school time will be required for some productions.

Note: This course may be taken more than once for elective credit.

Prerequisite: B or better in Media Production 2 or approval of instructor.

**0678 Media Production Practicum
(9 weeks A/B, .25 credit)**

This course is designated for juniors and seniors interested in pursuing a career in communications, advertising, television, or film. Each selected student will be scheduled into one of the communications courses, where he/she will plan and conduct practical instructional applications of their media production knowledge and skills. Enrollment is restricted to one student per section.

Note: This course may be taken more than once for elective credit. This course is graded Pass/Fail.

Prerequisite: Students must have completed Media Production 1 and Media Production 2. Completion of application process and an interview with the subject teacher is required for acceptance into the course.

READING LAB

9100 Grade 12 Reading Lab (9 weeks A/B, .25 credit)

9102 Grade 11 Reading Lab (9 weeks, .5 credit)

9104 Grade 10 Reading Lab (9 weeks, .5 credit)

The goal of this lab class is for students to achieve proficiency on the reading standards as measured by the Pennsylvania System of School Assessment (PSSA).

Reading Lab is a high school level intervention program designed to help students improve their reading comprehension, analysis, and interpretation skills. Both fiction and non-fiction reading is included. In addition, test-taking skills, short essay writing, and familiarity with the PSSA test are stressed. Students are identified

for participation based on their grade 8 and 11 PSSA scores, and participation is required each year until PSSA scores reach proficiency. This class replaces a scheduled elective or study hall in grades 10, 11, or 12. **These courses provide elective credit and may NOT be used for English credit.**

FAMILY AND CONSUMER SCIENCES

All courses in Family and Consumer Sciences are only offered if there is sufficient enrollment.

6159 The Young Child (9 weeks, .5 credit)

This course is a combination of previous courses Child 1 (6160) and Child 2 (6666)

This course provides a study of child development from birth through age five. It offers a balanced selection of topics concerning growth and stages of development, including pregnancy and delivery, the care of children from infancy through preschool, and the importance of play. Students will have the opportunity to practice parenting skills with a computerized baby. Students also extend their understanding through a service learning partnership at a local childcare facility for one class period every other week.

Students who have taken Child 1 (6160) may not register for this course.

6161 The School-Age Child (9 weeks, .5 credit)

This course is designed for the student whose interests involve working with children as a teacher or working in other child related careers. It provides a study of human development from the elementary school-age child through adolescence. This program offers a selection of topics including the stages of growth and development, knowledge of self, the social issues affecting today's teenagers and their families, and developmentally appropriate instruction. Students extend their understanding through a service learning partnership at a local elementary school for one class period every other week. There are no prerequisites for this course.

6162 Living Independently (9 weeks, .5 credit)

This course is designed to provide students with the skills necessary for living on their own. It will explore human development from late adolescence through adulthood. A selection of topics, such as interpersonal relationships, communication issues, preparing healthy foods, family relationships, automotive basics, consumer issues, and more will be presented. Students will extend their learning through trips to a local senior center for one class period every other week. There are no prerequisites for this course.

6264 American Cuisine (9 weeks, .5 credit)

Regional American fare will be prepared as students explore the amazing variety of foods found throughout the country. Food labs include main dishes, side dishes and desserts. Basic kitchen procedures, safety and sanitation in the kitchen will also be learned. A variety of demonstrations and videos enhance the learning experience. There are cooking competitions in this course for students to

demonstrate their learning. There are no prerequisites for this course.

6265 Global Gourmet (9 weeks, .5 credit)

With a focus on cooking techniques, students will prepare Italian, Chinese, French, and a variety of other cuisines. Students will make main dishes, side dishes, breads and desserts. Additional topics include sanitation, meal planning, nutrition, cake decorating, and cooking competitions. A variety of demonstrations and videos enhance the learning. There are no prerequisites for this course.

HEALTH AND PHYSICAL EDUCATION

All courses (other than 7061, 7062, 7161) in Health and Physical Education are only offered if there is sufficient enrollment.

7061 PE/Health (9 weeks, every day .5 credit)

7062 PE/Health (18 weeks A/B, .5 credit)

This required, coeducational course integrates the development of physical fitness and sports with units of study aimed at instilling health knowledge, desirable personal habits, positive attitudes, and good decision-making skills. This process of learning about the needs and care of the human mind and body is essential for optimal living.

7161 Physical Education/Drug Awareness Grades 11, 12 (9 weeks, A/B, .25 credit)

This required coeducational course offers a wide range of activities. The program emphasizes increasing personal skill-related fitness levels, the development of health-related components of fitness, and an appreciation of the value of exercise and sports in promoting positive attitudes toward healthful living. The course will provide a drug awareness component to help students develop positive decision-making skills.

7562 Advanced Health (9 weeks, .5 credit)

This nine-week course is designed for juniors and seniors with an interest in health or medicine. Course content includes the study of basic anatomy (structure) and physiology (function) of the human body. The focus of the course will be how to analyze the impact of a disease or a life/health problem on the physical, psychological, and social well-being of the individual. **Prerequisite: Satisfactory completion of Wellness/Fitness 7061 or 7062.**

7064 Team Sports (9 weeks, A/B, .25 credit)

This nine-week course is designed for students in grades 10-12 who enjoy the competition of team sports. Activities include team handball, floor hockey, volleyball, lacrosse, soccer, netball and other team activities that require cooperation, leadership, and decision-making skills. Emphasis will be on team participation and strategic competition within a sport.

7065 Lifetime Sports**(9 weeks, A/B, .25 credit)**

This course is designed for students who enjoy individual competition. The course will highlight exposure to sports that can be carried over to adulthood and help students assume responsibility for their own wellness through constructive use of leisure time. Students will gain knowledge of sports such as tennis, ping pong, badminton, archery, golf, and bowling.

7066 Personalized Fitness**(9 weeks, A/B, .25 credit)**

This course is designed for students in grades 10-12 with a very strong interest in improving their physical conditioning. Students will be developing personal fitness goals and creating a personal fitness plan while in class. They will receive instruction in all aspects of fitness, including nutrition, lifting techniques and safety, and cutting edge training. Swimming (CB East and CB South only) and various forms of cardiovascular training will be studied in class.

7063 Fitness Trends**(9 weeks, A/B, .25 credit)**

This elective course is designed for students who want to enhance all components of fitness through dance oriented concepts or studio driven forms of fitness. Activities may include, but are not limited to: ballet, hip-hop dance, step aerobics, line dance, kickboxing, yoga, pilates and more. Core assessments will include a choreographed group routine.

7068 Aquatic Conditioning**CB-East and CB-South only****(9 weeks, A/B, .25 credit)**

Aquatic Conditioning is aimed at students and student athletes who want to get in shape or remain in shape and who are working toward optimum health. This course includes lap swimming, leg and arm work, timed workouts, endurance training, heart monitoring, and more. Student athletes are encouraged to elect this course to get into shape, relieve stress and muscle problems during the sports season, and stay in shape after the season is over.

MATHEMATICS

Because of the sequential development of the mathematics curriculum, students must attain the prerequisites in the previous course before advancing to a more difficult level. Students with low grades are encouraged to repeat courses in order to master concepts required for sequential classes.

With principal's approval, Accounting 1 may be used to meet one of the mathematics credits required for graduation. The remaining math credits must be earned in courses listed under Mathematics.

The Mathematics Department recognizes the use of calculators as a valuable tool for learning in the classroom, and calculators will be used extensively for class work and homework in all courses. The district uses TI-83 graphing calculators in the classroom. Students are encouraged to purchase their own graphing calculator, whether this brand or one with similar functions. In certain advanced courses, graphing calculators with specific capabilities are important for daily classroom performance and are required for Advanced Placement Examinations.

While no specific brands are endorsed, there are restrictions on the type of calculators allowed on classroom tests and final exams. Calculators that do operations with variables, such as the TI-89, TI-92, and HP49G, will not be permitted to be used on district final exams, even though they may be used on some nationwide tests. Teachers have discretion as to whether these types may be used for particular classroom-related purposes.

MATHEMATICS SEQUENCES

These sequences represent typical pathways through high school mathematics classes. Additional pathways are possible. If you have any questions, your current mathematics teacher or guidance counselor will be able to answer them for you.

Grade 9	Grade 10	Grade 11	Grade 12
Advanced Placement Sequence			
College-bound students planning a career in medicine, engineering, science, or mathematics should consider this sequence, especially if they are applying to colleges designated as most competitive. Recommended electives for this level include AP Statistics and Computer Programming courses in Grades 11 and 12.			
Geometry/Trig 2	Accelerated Precalculus/Trigonometry 3	AP Calc AB	AP Calc BC or AP Statistics
Academic Sequence			
College and non-college bound students seeking a complete study of high school mathematics. Students planning a career in medicine, engineering, science, or mathematics should consider additional mathematics courses including Statistics and Data Analysis, AP Statistics, or Computer Programming courses in Grades 11 and 12.			
Algebra 2/Trig	Geometry/Trigonometry 2	Precalculus/Trigonometry 3 -----or----- Intermediate Math Concepts	AP Calc AB or Calc 1 -----or----- Precalculus/Trig 3
Accelerated Algebra 1	Algebra 2/Trig	Geometry/Trig 2	Precalculus/Trig 3 -----or----- Intermediate Math Concepts
Introduction to Algebra	Algebra 1	Geometry	Algebra 2
	Geometry	Algebra 2	Applied Math

2640 Algebra 1

Algebra 1 builds on the concepts studied in Introduction to Algebra. This is the second course in an in-depth two year study of formal Algebra. The fundamental operations and their properties are studied. Topics include: linear functions and inequalities, systems of equations, exponents and polynomials, factoring polynomials, rational expressions, radicals and quadratic functions. Problem solving, application, communication and reasoning are emphasized throughout the course. Students in this class will take the Algebra 1 Keystone Exam.

Prerequisite: Introduction to Algebra, grade of C- (70%) or better for the year or approval of the Math Transition Committee. Please contact your guidance counselor.

2645 Geometry

(18 weeks, 1 credit)

The curriculum in this course includes a comprehensive study of Euclidean Geometry. The emphasis of this course is the application of congruency, similarity, parallelism, perpendicularity, and area/volume of common geometric figures.

Prerequisite: Algebra 1 or Algebra 2.

2141 Algebra 2

(18 weeks, 1 credit)

This course is designed for the student who has successfully completed Geometry (course # 2645) and includes a review of algebra, polynomials and factoring, exponents, radicals, sequences and se-

ries, matrices, and concepts of probability and statistics. **Prerequisite: Geometry.**

2541 Applied Mathematics
(18 weeks, 1 credit)

This course is designed for students who have already completed both Algebra 2 Topics and Geometry (formerly called Geometry Topics) or Integrated Math 1 and Integrated Math 2. Students will apply mathematics, algebra, and geometry to real-life situations. Typical workshop situations might include designing a landscape or home, tracking stocks, surviving a financial crisis, and planning for your financial future.

Prerequisite: Algebra 1 or approval of the Math Transition Committee. Please contact your guidance counselor.

2520 Algebra 2/Trigonometry 1
(18 weeks, 1 credit)

This high school-level course is designed for those students with good mathematical ability and interest who have mastered the concepts and skills of Algebra 1. Algebra 1 concepts are reviewed and extended. The solutions of linear equations, linear inequalities, linear systems, and quadratic equations are stressed. Other topics include series and sequences, trigonometry of the right triangle, powers and roots, and basic variations.

Prerequisite: Algebra 1, C- or Algebra 2 Topics, C- or better.

2122 Geometry/Trigonometry 2
(18 weeks, 1 credit)

This course is designed for students who have successfully completed Algebra 2/Trigonometry 1. Geometry/Trigonometry 2 covers congruency, similarity, parallelism, perpendicularity, areas, and volumes. Concepts from coordinate geometry are reviewed with an emphasis on the integration of algebra and geometry.

Trigonometry topics may include indirect measurement, the Law of Sines and Cosines, and theorems/applications relating to tangents, apothems, and inscribed polygons.

Prerequisite: Algebra 2 /Trigonometry 1, C- or better.

2221 Intermediate Math Concepts
(18 weeks, 1 credit)

This course is intended for college bound students who have successfully completed Algebra 2/Trigonometry 1 and Geometry/Trigonometry 2, and who want a stronger math background before they are ready to advance to the next math course in sequence. This course includes topics from intermediate algebra and introductory probability and statistics. Topics from algebra include direct and inverse variation, exponents and roots, quadratics, reflections, rotations and translations, functions, series and sequences and basic trigonometry. Some topics from probability and statistics include measures of central tendency, data plots, probability, odds, permutations, and combinations. The fundamentals stressed in this course continue a student's preparation for standardized tests in mathematics.

Prerequisite: Algebra 2/Trigonometry and Geometry/Trigonometry 2, C- or better.

2111 Accelerated Precalculus/Trigonometry 3
(18 weeks, 1 credit)

Designed for students who have successfully completed Algebra 2/Trigonometry 1 and Geometry/Trigonometry 2, Precalculus/Trigonometry 3 is an extension of the concepts covered in the two prerequisite courses with an emphasis on the functional aspects necessary for preparation for the study of calculus. Polynomial, exponential, logarithmic, and trigonometric functions are addressed in this course. Trigonometric topics include the solution of trigonometric equations, identity manipulations, and transformation graphing, including work with amplitude, period, and phase shift. Combinatorics, probabilities, statistics, and data analysis will be introduced.

Incoming 10th and 11th graders who intend to take AP Calculus AB should consider taking Accelerated Precalculus/Trig 3 to more fully prepare for the pace and rigor of an AP course. The decision to take Accelerated Precalculus should not be taken lightly, and this decision should be discussed with your Geometry/Trig 2 teacher so there is no question regarding the expectation for Accelerated Precalculus.

Prerequisite: Algebra 2/Trigonometry 1 and Geometry/Trigonometry 2, B- or better.

2110 Precalculus/Trigonometry 3
(18 weeks, 1 credit)

Designed for students who have successfully completed Algebra 2/Trigonometry 1 and Geometry/Trigonometry 2, Precalculus/Trigonometry 3 is an extension of the concepts covered in the two prerequisite courses with an emphasis on the functional aspects necessary for preparation for the study of calculus. Polynomial, exponential, logarithmic, and trigonometric functions are addressed in this course. Trigonometric topics include the solution of trigonometric equations, identity manipulations, and transformation graphing, including work with amplitude, period, and phase shift. Combinatorics, probabilities, statistics, and data analysis will be introduced.

Prerequisite: Algebra 2/Trigonometry 1 and Geometry/Trigonometry 2, B- (or 9th Grade Geometry/Trig 2, C-) or Intermediate Math Concepts, C- or better.

2211 Advanced Mathematics Concepts
(18 weeks, 1 credit)

This course will explore advanced math concepts such as matrices and matrix operations, vectors and parametric equations, conic sections, iteration and fractals, combinatorics and probability, statistics, and data analysis. Extensive problem-solving and applications will be integrated throughout the course. This elective is recommended as an additional sequence course to Precalculus/Trigonometry 3.

Prerequisite: Precalculus/Trigonometry 3, C- or better or Intermediate Math Concepts, C- or better.

2101 Calculus 1
(18 weeks, 1 credit)

Calculus 1 is the study of limits and change with respect to time. Differential calculus and some integral calculus will be covered in the course. Topics include functions, derivatives and their applications, and integral calculus and its applications. Calculus 1 parallels

the first-semester of most college calculus courses. Students must have an excellent command of algebraic processes to successfully complete this course.

Note: Students requiring a complete study of calculus for college preparation should follow Calculus 1 with Calculus 2. Students electing these two courses are not expected to take the Advanced Placement Examination; consequently, no weighted grade credit is awarded for Calculus 1 and 2.

Prerequisite: Precalculus/Trigonometry 3, B- or better or Advanced Mathematical Concepts, C- or better.

2103 Calculus 2 (18 weeks, 1 credit)

Calculus 2 will continue the Calculus 1 course. Topics will include transcendental functions, techniques of integration, improper integrals, and numerical approximations. Infinite series and polar coordinates will also be studied. This course parallels the second semester of most college calculus courses.

Note: Students requiring a complete study of calculus for college preparation should follow Calculus 1 with Calculus 2. Students electing these two courses are not expected to take the Advanced Placement Examination; consequently, no weighted grade credit is awarded for Calculus 1 and 2.

Prerequisite: Calculus 1, C- or better.

2102 Advanced Placement Calculus AB (27 weeks, 1.5 credits)

This course provides a complete study of differential and integrated calculus. It is designed to prepare students for the Advanced Placement Calculus AB Examination. The course outline completes the recommended topics described by the College Board **at a fast and intense pace** to guarantee time for practice testing exercises.

Students selecting this course should plan to take the Advanced Placement Calculus AB Examination in May.

AP weighted-grade course.

Prerequisite: Accelerated Precalculus/Trigonometry 3, B or better, or Precalculus/Trigonometry 3, A- or better.

2200 Advanced Placement Calculus BC (27 weeks, 1.5 credits)

This advanced course reviews the concepts of calculus, emphasizing and extending introductory topics in differentiation, and integration. It is designed to prepare students for the Advanced Placement Calculus BC Examination. The course outline completes the recommended topics described by the College Board **at a fast and intense pace** to guarantee time for practice testing exercises.

Students selecting this course should plan to take the Advanced Placement Calculus BC Test in May.

AP weighted-grade course.

Prerequisite: AP Calculus AB, B or better.

2625 Statistics and Data Analysis (18 weeks, 1 credit)

Statistics is the study of the fundamentals of descriptive and inferential statistics. Topics include data descriptions using graphs, bivariate data, regression lines, probability and probability distributions, measures of center and variability, confidence intervals, and significance testing.

The TI-83 graphing calculator is used extensively in this course and is necessary for students to successfully complete the course. Any graphing calculator will suffice provided it has statistical menus. The statistical menus should include mean, median, standard deviation, quartiles, lists and list commands, and distributions (binomial, geometric, normal, and Poisson).

Prerequisite: Geometry/Trigonometry 2, C- or better and Algebra 2/Trigonometry, C- or better.

2601 Advanced Placement Statistics (18 weeks, 1 credit)

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The course will expose students to four broad conceptual themes: (1) exploring data – observing patterns and departures from patterns, (2) planning a study – deciding what and how to measure, (3) anticipating patterns – producing probability and simulation, and (4) statistical inference – confirming models.

The course outline covers the topics recommended by the College Board. The **pace is fast and intense** in order to assure time for practice testing exercises.

Students who take this course should plan to take the Advanced Placement Statistics Test given in May.

AP weighted-grade course.

Prerequisite: Precalculus/Trigonometry 3, B or better.

MATH LAB

9101 Grade 12 MATH LAB (9 weeks A/B, .25 elective credit)

9103 Grade 11 MATH LAB (9 weeks .5 Math credit)

9105 Grade 10 MATH LAB (9 weeks .5 Math credit)

The goal of this lab class is for students to achieve proficiency on the math standards as measured by the Pennsylvania System of School Assessment (PSSA).

Math Lab is a high school level intervention program designed to help students improve their understanding of basic math concepts, algebra, geometry, data analysis, and the other PA “assessment anchors” (part of the PA mathematics standards). In addition, test-taking skills, open-ended problem-solving, and familiarity with the PSSA test are stressed.

Students are identified for participation based on their grade 8 and 11 PSSA scores, and participation is required each year until PSSA scores reach proficiency. This class replaces a scheduled elective or study hall in grades 10, 11, or 12. **Please note that course 9101 may NOT be used for Math Credit. Courses 9103 and 9105 may be used for Math Credit.**

Mathematics Elective Courses

THESE COURSES PROVIDE GRADUATION CREDITS IN ELECTIVES ONLY. MATH ELECTIVE COURSES ARE ONLY OFFERED IF THERE IS SUFFICIENT ENROLLMENT.

2523 Visual Basic.NET (9 weeks, .5 credit)

Visual Basic.NET is designed for students who want to extend their knowledge of computers and programming. The language used is Visual Basic.NET. Emphasis is placed on language syntax and program structure.

Content topics include fundamentals of programming in VB.NET, general procedures, iteration statements, and application problems. **This course may NOT be used for Math credit.**

Prerequisite: Geometry/Trigonometry 2, C- or better.

2004 Introduction to Java (9 weeks, .5 credit)

This course is an introduction to the programming language Java. Emphasis is placed on language syntax and program design and structure. Topics include computer history and architecture, software development life cycle, computer ethics, fundamentals of Java, and object-oriented programming, data types, control statements, and strings.

Students planning to take the Advanced Placement Computer Science exam in the spring should select this course. This course may NOT be used for Math credit.

Prerequisite: Geometry 2/Trigonometry, C- or better.

2005 Advanced Placement Computer Science A (18 weeks, 1 credit)

This course is designed to prepare students for the Advanced Placement Computer Science A Examination given in the spring. It is equivalent to a first-semester college course in Computer Science using the Java language. Students will learn problem solving by learning and applying a programming technique known as Object-Oriented Programming (OOP). The major points of emphasis are programming design and methodology, algorithm development, classes and methods, one- and two-dimensional arrays, and the Case Study.

Students who take this course should plan to take the Advanced Placement Computer Science A Test given in May. AP weighted-grade course.

Prerequisite: Introduction to Java, B- or better or Precalculus, B or better.

2623 SAT Math Preparation (9 weeks, .5 credit)

This course is designed as a review of previously learned mathematics to prepare students for the SAT and other standardized assessments. Students will also review problem-solving skills and learn effective test-taking strategies. Technology will be integrated throughout the course.

An instructional fee will be charged to students who wish to use the SAT review book as a consumable workbook. **This course may NOT be used for Math credit.**

Prerequisite: Students taking this course must have COMPLETED courses in Algebra 2/Trig 1 or Algebra 2 Topics AND Geometry/Trig 2 or Geometry Topics.

MUSIC

All high school music courses are offered on an elective basis. Performance groups meet for ninety minutes on alternate days for the entire year. Students in these courses have opportunities to participate in many extra-curricular activities, including marching band, pit orchestra, and various kinds of instrumental and vocal ensembles. Many groups also participate in exhibitions and competitions. All courses in Music are only offered if there is sufficient enrollment.

8663 Concert Band (36 weeks, A/B schedule, 1 credit)

Concert Band is designed for students in grades 10-12 who choose to continue their educational interest in band music. Students gain experience playing a variety of musical styles and continue their development of musical skills and techniques. Public performances are scheduled throughout the year. Individual instruction on specific instruments may take place within the larger group rehearsal. However, ensemble experience and the individual's performance as a responsibility to the group's overall success are emphasized. Students are eligible to audition for County and District Band.

Participation in the band program includes required after-school and evening rehearsals and performances as determined by the director. All band members are encouraged to participate in the Marching Band. Marching Band is one of the most visible extracurricular activities in the high school and provides the opportunity for motivated musicians to attain higher levels of performance.

Prerequisite: Participation in the middle school band program or the equivalent, by audition, and/or approval of the high school band director.

8625 Jazz Lab (18 weeks A/B schedule, .5 credit)

Jazz Lab class is offered as an opposite-day companion course to Concert Band. Students enrolled in this course must also be enrolled in Concert Band. This course is open to all instrumentalists desiring to increase their knowledge of jazz performance, improvisation, styles, and music history. Emphasis is placed on the development of the style, interpretation, and technical skills needed for jazz performance along with the historical aspects of this American art form.

8660 Symphonic Band (36 weeks, A/B schedule, 1 credit)

Symphonic Band is offered to students in grades 10-12 who play woodwind, brass, or percussion instruments. Public performances including concert and marching settings are scheduled throughout the year. Individual instruction on specific instruments may take place within the larger group rehearsal. However, emphasis is on the ensemble experience and on the individual's performance as a responsibility to the group's overall success. Students are eligible to audition for County and District Band.

Participation in the band program includes required after-school and evening rehearsals and performances as determined by the director. All band members are encouraged to participate in the Marching Band.

Prerequisite: Participation in the Concert Band is preferred but not required. Admission is by audition or approval of the high school band director.

8665 Jazz Ensemble

(36 weeks, A/B schedule, 1 credit)

Jazz Ensemble is offered as an opposite day companion course to Symphonic Band. Students enrolled in this course must also be enrolled in Symphonic Band. The course is open by audition to students who play the saxophone, trumpet, trombone, piano, guitar, bass, or drums.

Classes are devoted to a study of a wide variety of jazz music and styles. Emphasis is placed on the development of the style, interpretation, and the technical skills needed for jazz performance, as well as the historical aspects of this American art form.

Participation in the Jazz Ensemble includes required after-school and evening rehearsals and performances as determined by the director. This ensemble will be involved in several jazz competitions and festivals in the spring that generally occur on Friday evenings and some Saturdays. **Prerequisite: Audition and/or approval by high school jazz ensemble director.**

8661 Chorus–Grade 10

(36 weeks, A/B schedule, 1 credit)

Chorus is offered to sophomores who enjoy singing in a vocal ensemble. Active participation and pursuit of individual musical growth are essential for the successful performance of choral music. Students will learn to develop proper vocal technique and performance discipline. Emphasis will be placed on training the singers to become better musicians through the use of choral repertoire.

The chorus will perform both classical and contemporary works at the appropriate developmental level. A repertoire will be chosen that reflects a variety of styles, forms, and cultures and includes both sacred and secular texts. School and community performances will be scheduled throughout the year. Students are eligible to audition for County and District Chorus as well as for select vocal ensembles.

Participation in the choral program includes required afterschool and evening rehearsals and performances as determined by the director. Participation in the spring trip is optional but encouraged. **Prerequisite: Participation in the middle school choral program is preferred but not required.**

8662 Choir–Grades 11, 12

(36 weeks, A/B schedule, 1 credit)

Choir is offered to juniors and seniors who enjoy singing in a vocal ensemble and have completed at least one year of high school music training. Active participation and pursuit of individual growth are essential for the successful performance of choral music. Students will continue to develop proper vocal technique and performance discipline.

The choir performs both classical and contemporary works at the highest standard. A repertoire will be chosen that reflects a variety of styles, forms, and cultures and includes both sacred and secular texts. School and community performances will be scheduled frequently throughout the year. Students are eligible to audition for County and District Chorus as well as for select vocal ensembles.

Participation in the choral program includes required afterschool and evening rehearsals and performances as determined by the director. Participation in the spring trip is optional but encouraged. **Prerequisite: Participation in Chorus – Grade 10 is preferred but not required.**

8664 Orchestra

(36 weeks, A/B schedule, 1 credit)

Students participating in string orchestra will actively engage in the creation and performance of orchestral music literature, which will expose students to a variety of musical genres and periods. Students will advance their musical development through rehearsal and performance in small and large ensemble settings.

Orchestra is offered to students who play violin, viola, cello, or double bass. Students playing other instruments may only join orchestra with the approval of the high school orchestra director.

Performances in the school and community will be scheduled throughout the year. Students are eligible to audition for County and District Orchestra. Participation in the orchestra includes required after-school and/or evening rehearsals and performances as determined by the director.

Prerequisite: Participation in the middle school orchestra program or the equivalent, by audition, and/or approval of the high school orchestra director.

8667 Music Theory

(18 weeks, A/B schedule .5 credit)

Music Theory develops the basic rudiments of music and introduces functional harmony studies. This course is designed for music performers who wish to further their musical understanding. This course is also intended to prepare students for Advanced Placement Music Theory.

8620 Music Technology

(18 weeks, A/B schedule .5 credit)

This course allows students to explore music technology applications and techniques, by utilizing MIDI workstations. Students will learn in a hands-on environment, developing skills with sequencing, notation, and other music software.

Prerequisite: Some knowledge of basic rhythm and pitch music notation.

8600 Advanced Placement Music Theory

(18 weeks, everyday, 1 credit)

AP Music Theory provides an in-depth study of the processes of music performance, composition, and analysis by focusing on the development of (1) complex aural skills, (2) skills in written analysis of functional harmony, (3) sight singing techniques, (4) musical composition skills, (5) keyboard skills, and (6) understanding of musical form and history.

Students who take this course should have acquired basic skills in vocal or instrumental performance.

Students taking this course should plan to take the Advanced Placement Music Theory Test given in May.

AP weighted-Grade Course.

Prerequisite: Successful completion of Music Theory OR a passing score on the Elective Placement Test.

NOTE: At CB East and CB South AP Music Theory will be offered every other year. It will be offered for 2013-2014, 2015-2016, etc. At CB West, beginning 2012-13, AP Music Theory will be offered every other year. It will be offered for 2012-13, 2014-15, 2016-17, etc. Music students should plan accordingly.

PEN (Gifted Program)

9600 PEN–Grades 10–12

(9 weeks, .5 credit)

This course provides students identified as gifted with the opportunity to dialogue with others of similar abilities and to pursue areas of mutual and individual interest. Students are involved in readings, discussions, lectures, and other activities designed to foster critical thinking skills and the exchange of ideas.

At the beginning of the course, students may choose to take PEN for a grade as a pass/fail course. In either case, credit will be awarded if the course is passed.

SCIENCE

SCIENCE SEQUENCES			
Grade 9	Grade 10	Grade 11	Grade 12
MOST RIGOROUS PROGRAM			
For college-bound students planning a career in scientific research, medicine, engineering, or in another scientific field. This is especially recommended if the student is applying to a college defined as most competitive.			
Advanced Science	Recommend two of the following courses in 10th grade based upon future academic goals: Honors Biology Honors Chemistry Honors Physics	Choose from AP Biology; AP Chemistry; AP Physics: Newtonian Mechanics; AP Physics: Electricity and Magnetism; Organic and Equilibrium Chemistry; AP Environmental Science; and/or select earth science electives as they apply to your career goals; Human Anatomy and Physiology should be taken for health-care related fields.	
ACADEMIC PROGRAM			
For a strong background for college-bound students, Central Bucks recommends at least one course in Biology, Chemistry, and Physics.			
Academic Science	Academic Biology or Academic Chemistry or Academic Physics	Academic Biology or Academic Chemistry or Academic Physics	Academic Biology or Academic Chemistry or Academic Physics
	Practical Biology or any of the Earth Science electives: Astronomy, Environmental Science, Geology and Environment, Oceanography	Astronomy, Environmental Science, Geology and Environment, Oceanography, Practical Biology, Conceptual Chemistry	

Biology Courses

3010 Honors Biology

3020 Academic Biology

(18 weeks, 1 credit)

Biology is a course designed to increase the student's knowledge of concepts, processes, and facts of biology. The course will also help the student understand that biology is a human endeavor with social consequences and responsibilities. Major topics studied in the course are cell physiology, genetics, cell energy, embryology, microbiology, and bioengineering. The honors classes will explore more topics within the course and complete additional readings, including the nonfiction book, *The Hot Zone*. This course is intended for students intending to meet college entrance requirements.

Honors weighted-grade course for 3010.

Prerequisite for Honors: Teacher approval required.

3100 Advanced Placement Biology

(27 weeks, 1.5 credits)

The Advanced Placement Biology course is similar to a freshman-level college biology course. It follows a course outline developed by the Advanced Placement organization and uses a college-level textbook. College credit or advanced standing may be obtained from many institutions through scores of 3 or more on the Advanced Placement Test.

Students taking this course should plan to take the Advanced Placement Biology Test given in May.

AP weighted-grade course.

Prerequisite: Honors Biology and Honors Chemistry or teacher recommendation.

3040 Practical Biology (18 weeks, 1 credit)

Practical Biology uses a problem-based approach to the biological sciences. In the first half of the course, topics such as cell function, genetics, and microbiology are studied. The second half of the course addresses questions and concerns about natural resources, ecosystems, conservation, and ecology. This course is designed for the student who would like a more general understanding of the biological world.

3130 Human Anatomy and Physiology (18 weeks, 1 credit)

The course of study focuses on body systems, such as the skeletal, muscular, cardiovascular, digestive, and nervous systems. A major theme of this course is to examine current issues, technologies, and bioethical questions relating to the curricular topics. Structured lab work, including dissection of specimens, is part of the course.

Human Anatomy and Physiology is designed for college-bound students with an interest in the allied health fields or students with a general interest in the biology of the human body.

Prerequisite: Academic or Honors Biology, C or better.

3122 Applied Human Anatomy and Physiology CB-West only (18 weeks, 1 credit)

This course links biology and physical education to provide students with the opportunity to learn about human anatomy and physiology. The concepts and principles are then applied in a student-designed total "wellness" program. A wellness program includes fitness training, nutrition, and stress management.

The class meets every day for one block. Activities include the use of the YMCA as a fitness center, cholesterol screening, student-designed fitness programs, an exhibition of mastery, and dissection labs involving preserved specimens. Active participation is required for all activities.

Prerequisite: Biology, C or better.

Chemistry Courses

3110 Honors Chemistry (18 weeks, 1 credit)

Honors Chemistry offers a study of the relationship between matter and energy and the role that each plays in physical and chemical change. Students will learn the scientific methods of problem solving and will be expected to apply them in laboratory work. Students will learn to use laboratory equipment safely and correctly and will learn to record and interpret data from experiments. Laboratory work and assessments will challenge students to be creative and to give evidence of individual study.

Honors Chemistry is intended for students who have distinguished themselves in mathematics and science. The course prepares students to meet course expectations for advanced-level courses such as AP Biology, AP Chemistry, or AP Physics. For this reason, students are expected to be working above grade level in mathematics. Students planning to pursue careers in medicine, engineering, or other science fields should consider taking this course.

Honors weighted-grade course.

Prerequisite: Algebra 2/Trigonometry 1, B or better.

3120 Academic Chemistry (18 weeks, 1 credit)

Academic Chemistry offers a study of the relationship between matter and energy and the role that each plays in physical and chemical change. Students will learn the scientific methods of problem solving and will be expected to apply them in laboratory work. Students will learn to use laboratory equipment safely and correctly and will learn to record and interpret data from experiments. To be successful in Academic Chemistry, students must exhibit strong study skills and daily commitment to course activities.

Academic Chemistry is designed for students who have demonstrated proficiency in mathematics, including satisfactory completion of Algebra 2/Trigonometry 2. This course meets college entrance requirements.

Prerequisite: Algebra 2/Trigonometry 1, C- or better.

3140 Conceptual Chemistry (18 weeks, 1 credit)

Conceptual Chemistry offers students the opportunity to study topics related to the general structure and behavior of matter. Essential chemistry content is presented within the context of realistic situations and is related to the student's practical experiences.

All units will involve laboratory investigations. The course will help students understand industrial applications of chemistry and how chemistry is used to solve societal problems. Success in the course requires daily, active participation. Although this course meets college entrance requirements, it is recommended that the college-bound student takes Academic Chemistry.

3114 Organic and Equilibrium Chemistry (9 weeks, .5 credit)

This course is designed for students who plan to take a science or engineering major in college. Topics include equilibrium-related concepts in acid/base chemistry, thermodynamics, and electrochemistry. Atomic and molecular structure as it is related to organic chemistry will also be studied. Organic nomenclature and functional groups in organic molecules will be included, as well as important organic chemistry reactions. This course is intended for students who wish to prepare for the SAT Subject Test in Chemistry or for Chemistry placement exams given by colleges.

Prerequisite: Academic Chemistry, B and teacher approval.

3101 Advanced Placement Chemistry (27 weeks, 1.5 credits)

Advanced Placement Chemistry differs from Academic Chemistry in respect to the kind of textbook used, the depth of topics covered, the emphasis on calculations, the mathematical formulation of principles, and the type of laboratory work expected. Topics include matter's structure and states, reactions' types, equilibrium, kinetics, thermodynamics, and descriptive chemistry beyond that covered in Academic Chemistry.

Advanced Placement Chemistry provides an opportunity for interested students to engage in an in-depth study of college-level chemical concepts. It is specifically designed to stimulate secondary students to higher achievement and eliminate duplication later in college. College credit or advanced standing may be obtained from many institutions for students who score 3 or higher on the Ad-

vanced Placement Test. Students must complete an application to verify course prerequisites. **A summer assignment is required and should be completed before the start of the course.**

Students taking this course should plan to take the Advanced Placement Chemistry Test given in May.

AP weighted-grade course.

Prerequisite: Honors Chemistry with a B or Academic Chemistry with an A; and Pre Calc/Trig 3, B-.

Physics Courses

It is recommended that all college-bound Central Bucks students participate in a physics course.

3224 Academic Physics (18 weeks, 1 credit)

Why is the sky blue? Have you ever wondered how the world works? If so, then Academic Physics is the course for you. Students will learn some of the most foundational concepts in all of the sciences: motion, forces, energy, electricity & magnetism, wave motion, and the behavior of light. Classroom instruction will emphasize hands-on learning. Students will have the opportunity to apply basic mathematical techniques to real-world situations. Students will learn the scientific method of problem-solving and learn to apply it successfully through laboratory experimentation.

It is recommended that all college-bound Central Bucks students participate in a physics course.

Prerequisite: Completion of Algebra 1.

3225 Honors Physics (18 weeks, 1 credit)

Honors Physics is the study of motion, forces, energy & momentum. Experimentation, demonstrations, problem-solving and associated readings are all part of the course. Students will learn the scientific method of problem-solving and learn to apply it successfully in the laboratory.

Honors Physics is intended for students who have distinguished themselves in mathematics and science. It is a particularly math-intensive course; and consequently, students are expected to be working above grade-level in mathematics. Students planning to pursue careers in medicine, engineering, or other science fields should take this course.

Honors weighted-grade course.

Prerequisite: Completion of Algebra 2/Trigonometry.

3102 Advanced Placement Physics: Newtonian Mechanics (18 weeks, 1 credit)

This AP course is designed to address the areas of kinematics, Newton's laws of motion, energy and power, systems of particles, circular motion and rotation, oscillations, and gravitation. This is a typical first-semester college physics course taken by students majoring in science, math, or engineering. High motivation and an above-average ability in math are important because the course will move at a fast pace and is calculus based.

Students taking this course should plan to take the Advanced Placement Physics: Newtonian Mechanics Test given in May.

AP weighted-grade course.

Prerequisite: Completion of Pre-Calculus.

3103 Advanced Placement Physics: Electricity & Magnetism (18 weeks, 1 credit)

This AP course addresses the following content areas: electrostatics, electric circuits, magnetostatics, electromagnetism, and conductors, capacitors, and dielectrics. Use of calculus in problem solving and in derivations will increase as the course progresses. This is a typical second-semester college physics course.

Students taking this course should plan to take the Advanced Placement Physics: Electricity and Magnetism Test given in May.

AP weighted-grade course.

Prerequisite: AP Physics: AP Newtonian Mechanics or Honors Physics and Calculus 1.

Earth Science Courses

3640 Astronomy/Space Exploration (9 weeks, .5 credit)

The astronomy course provides a descriptive study of the universe and the place that our solar system occupies within the universe. The motion of our solar system and the instruments used to study our galaxy are explored, along with travel, work, and exploration in space.

3646 Geology and Environment (18 weeks, 1 credit)

This project based and inquiry-lab driven course creates a learning environment that allows students to explore the interconnections between biology, chemistry, physics, and the earth sciences. This course illustrates the relevant connections between the daily lives of students and the key concepts in geology. Topics in the course will include rocks and minerals, map interpretations, plate tectonics, earthquakes and volcanoes, weathering and erosion, pollution, climate change, population dynamics, sustainability and more.

3643 Oceanography (9 weeks, .5 credit)

Oceanography is for students interested in the ocean and its effects on man and nature. Recent concern about ocean pollution has increased the need for basic understanding of the sea environment. Students will learn about the physical features of the oceans, chemical makeup, tides, currents, topography of the sea floor, and shorelines. The biological requirements of the ocean community will also be studied.

Environmental Courses

3121 Environmental Science (9 weeks, .5 credit)

Environmental Science provides students with opportunities to investigate real environmental problems such as water quality, waste disposal, and energy sources and conservation. Students participate in activities centering around both natural and man-made environments.

The course helps students develop the conflict-resolution skills needed for community environmental problem-solving. Students examine different facets of environmental issues and are encouraged to make sound decisions based on fact. Topics include the ecosystem concept, terrestrial ecology, soil ecology, water ecology, energy sources, and pollution. This course is designed for a broad range of students with a high interest in environmental conditions and problems.

**3108 Advanced Placement Environmental Science
(18 weeks, 1 credit)**

The goal of AP Environmental Science is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze both natural and human-made environmental problems, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

The course focuses on the “real science” behind environmental problems and issues. Laboratory and field study are important elements of the course. Topics include scientific analysis, interdependence of the Earth’s systems, human population dynamics, renewable and nonrenewable resources, environmental quality, and the environment and society.

Because of the quantitative analysis that is required in the course, students should also have taken at least one year of Algebra.

Students taking this course should plan to take the Advanced Placement Environmental Science Test given in May.

AP weighted-grade course.

Prerequisite: Academic Biology or Academic Chemistry.

**3213 Forensic Science
(18 weeks, 1 credit)**

The course will involve the application of chemical, physical, and biological principles for the investigation of physical evidence in criminal cases. It will entail analytical reasoning, laboratory testing, possible field trips, and provide technical expertise (qualified speakers who will present and help us to analyze evidence from criminal cases).

Students will be taught the fundamentals of a criminal investigation and how they apply in a court of law. The students will learn by doing — they will isolate and process crime scenes, analyze and interpret lab data, and problem solve. Each student’s experience will culminate with the solving of a crime scene scenario.

Grade Level: 11, 12

Prerequisites: Academic Biology, C or higher.

SOCIAL STUDIES, INCLUDING HISTORY AND THE SOCIAL SCIENCES

The study of history rests on knowledge of facts, dates, names, places, events, and ideas. However, true historical understanding requires students to engage in historical thinking: to raise questions and to collect solid evidence in support of their answers; to go beyond the facts presented in their textbooks and examine the historical record for themselves; to consult documents, journals, diaries, artifacts, historic sites, works of art, quantitative data, and other evidence from the past, and to do so imaginatively—taking into account the historical context in which these records were created and comparing the multiple points of view of those on the scene at the time (*National Historical Thinking Standards*). The study of history provides an ordered account of the past and its significance to us.

Sophomores will examine the “modern” world from 1450 C.E. to the present. Juniors will study the importance of civics and examine our American government and its involvement in the US economy. Seniors will focus on how international relations and economics affect our globalized contemporary world.

All students are required to complete the four-year sequence (Grades 9-12) of social studies courses for graduation. Any AP course with 1.5 credits will have 1.0 credit assigned to the graduation requirements for social studies credit and .5 credit assigned to electives.

REQUIRED SOCIAL STUDIES SEQUENCES BEGINNING			
Grade 9	Grade 10	Grade 11	Grade 12
MOST RIGOROUS PROGRAM			
For college-bound students who are applying to colleges designated as most competitive and/or planning to major in history, business, social sciences, or humanities.			
Advanced United States History	AP European History	AP US History	AP Macroeconomics and/or AP Comparative Government
HONORS & ACADEMIC PROGRAM			
For the majority of college-bound students			
Academic United States History	Modern World History Honors OR Modern World History Academic	American Government and Economic Systems Honors OR American Government and Economic Systems Academic	Global Relations Honors OR Global Relations Academic

1101 Advanced Placement European History (27 weeks, 1.5 credits)

This course investigates the development of Western European society between 1450 and the present. The students will become familiar with the principal themes in modern European history and the methods for the analysis of historical evidence.

Students who take this course should plan to take the Advanced Placement European History Test given in May.

AP weighted-grade course.

Prerequisites: B or better in 9th Advanced United States History, or A- or better in 9th Academic United States History, or teacher recommendation.

1111 Honors Modern World History 1120 Academic Modern World History (18 weeks, 1 credit)

This course will concentrate on the history of the modern world, both Western and non-Western, from 1450 CE to the present. Topics will include foreign policy, political systems, social and cultural change, and economic trends. The honors course addresses the same time period and topics but in more depth, with added readings, writing assignments, and projects.

Honors weighted-grade for 1111

Honors prerequisite: Teacher recommendation.

1000 Advanced Placement U.S. History (27 weeks, 1.5 credits)

This course examines the history of the United States in a chronological manner from the Colonial Period through the 1990s. Students complete readings in both factual and interpretive textbooks. Class participants will address more historical material, study history in greater depth, and complete projects and writing assignments other than those assigned in Recent America, Honors or Academic.

Students who take this course should plan to take the Advanced Placement U.S. History Test given in May.

AP weighted-grade course.

Prerequisites: B or better in 10th Honors Social Studies, or A in 10th Academic Social Studies, or B or better in AP European History, or teacher recommendation.

1012 Honors American Government and Economic Systems 1022 Academic American Government and Economic Systems (18 weeks, 1 credit)

This course examines the organization and operations of the political system in the United States. Topics will focus on how the government affects our policies, economies, and social issues while also examining the three branches of our national government, the role of political parties and interest groups, and elections. Economics will introduce such fundamental economic concepts as scarcity, opportunity costs, supply and demand, competition and incentives,

fiscal and monetary policy, forms of business organization, the business cycle, and the economic role of government.

The honors course addresses the same topics but in more depth with added readings, writing assignments, and projects.

Honors weighted-grade for 1012.

Honors prerequisite: Teacher recommendation.

1202 Advanced Placement Macroeconomics

(18 weeks, 1 credit)

This course will examine the behaviors of the entire economy, including the study of employment, inflation, economic growth, and consumer spending.

Students who take this course should plan to take the AP Macroeconomics test in May.

AP weighted-grade course.

Prerequisites: B or better in AP European History or AP U.S. History or A- or better in 11th grade social studies course or teacher recommendation.

1203 Advanced Placement Comparative Government

(18 weeks, 1 credit)

This course will focus on the historical and contemporary development of governmental, political, and social systems in Great Britain, France, Russia, China, and other less developed nations.

Students who take this course should plan to take the AP Comparative Government test in May.

AP weighted-grade course.

Prerequisites: B or better in AP European History or AP U.S. History or A- or better in 11th grade social studies course or teacher recommendation.

1210 Global Relations Honors

1220 Global Relations Academic

(18 weeks, 1 credit)

Students in this course will study how countries relate to one another, how they work together, and how they sometimes conflict in our world today. A major focus of the course is the impact of international issues on the formulation of American foreign policy. Comparative economic systems and international trade in the evolving global economy will also be considered. The central skill of economics is decision-making; emphasis will be placed on the development of an economic perspective to problem-solving so students can better understand current economic issues such as inflation, unemployment, stagflation, productivity, and the national debt.

The honors course addresses the same topics but in more depth with added readings, writing assignments, and projects.

Honors weighted-grade for 1210.

Honors prerequisite: Teacher recommendation

Social Studies Elective Courses

THESE COURSES PROVIDE GRADUATION CREDITS IN ELECTIVES ONLY. SOCIAL STUDIES ELECTIVE COURSES ARE ONLY OFFERED IF THERE IS SUFFICIENT ENROLLMENT.

1160 Psychology – Grades 11, 12

(9 weeks, .5 credit)

This course introduces students to the factors affecting human behavior and the ideas of the more prominent psychologists. Stages of human development, learning, perception, personality, and the psychological basis of behavior are among the topics investigated. Through readings, discussion, viewing, and experimentation, students achieve a better understanding of human behavior.

1161 Sociology – Grades 11, 12

(9 weeks, .5 credit)

Sociology will enable students to better understand the relationships and influences of social groups upon the individual. The socialization process, social stratification, deviance, social institutions, and cultural change are among the topics explored. A variety of sociological perspectives will be applied throughout this course in order to enable students to analyze social behavior.

1162 Introduction to the Law

Grades 10, 11, 12

(9 weeks, .5 credit)

What are my legal rights and responsibilities as a citizen in the United States, as a juvenile, or as an adult in society? What legal structures and procedures govern and protect me? Introduction to the Law is designed to help students answer these questions by conducting a thorough examination of the political and legal ideals and practices of this country.

TECHNOLOGY EDUCATION

All courses in technology education are offered only if there is sufficient enrollment.

6360 Exploratory Architectural Design

(9 weeks, .5 credit)

This course is for those students wishing to investigate their interest in architecture. Students will gain hands-on experience as they develop a residential design and gain exposure to computer-aided design. Model building and portfolio development are also elements of the course. **Students completing this course are eligible to enroll in Architectural Design 2.**

**6361 Architectural Design 1
(18 weeks, 1 credit)**

This course is highly recommended for those students interested in pursuing architecture upon graduation, those wishing to explore the various careers in architecture, and those with an interest in residential home layout. During this course students will study basic structural planning, design, and construction. Class time will be devoted to creating a residential design study and constructing a model of it. Students will utilize computer-aided design (CAD) in completing the design study. Students will make use of digital photography and desktop publishing as they begin building their architectural design portfolio.

**6362 Architectural Design 2
(18 weeks, 1 credit)**

This course allows students to explore their interest in Architecture in greater detail. Students will complete a commercial design study utilizing computer-aided design as well as the drawing board. Emphasis is placed on three dimensional conceptualization, site development, model building, and time management skills. Level one portfolios will be built upon with college admissions in mind.

Prerequisite: Completion of Architectural Design 1 or Exploratory Architectural Design with a final grade of C- or better, or approval of teacher.

**6363 Architectural Design 3
(18 weeks, 1 credit)**

Students will complete advanced architectural design problems utilizing computer-aided design as well as traditional methods. Emphasis is placed on three-dimensional conceptualization, elements of design, architectural history, color in design, computer generated 3D rendering, advanced model building, and time management skills. Previous level portfolios will be built upon with college admissions in mind.

Prerequisite: Completion of Architectural Design 2 with a final grade of C- or better, or approval of teacher.

**6460 Exploratory Materials Processing and Design
(9 weeks, .5 credit)**

In this course, students will explore the software employed by the manufacturing industry to operate a variety of machines, including a laser and CNC equipment. Students will explore graphic design and layout as they design and produce their own mantel clock. In addition to the computer-controlled machinery, Exploratory Materials Processing provides students with the opportunity to interact with traditional machines.

A fee will be charged for materials used in projects kept by the student.

Students completing this course are eligible to enroll in Materials Processing and Design 2 with a final grade of C- or better, or approval of teacher.

**6461 Materials Processing and Design 1
(18 weeks, 1 credit)**

In this course, students will use the same software employed in the manufacturing industry to program a variety of machines. Students will explore graphic design and layout as they design and produce their own mantel clock and other projects.

In addition to offering experience with computer-controlled machinery, Materials Processing and Design 1 also provide students with the opportunity to interact with traditional machines as they produce other projects. Students will use problem-solving skills throughout the course.

Digital imaging and desktop publishing techniques are used as students develop an advertisement for one of the products they design and produce.

A fee will be charged for materials used in projects kept by the student.

**6462 Materials Processing and Design 2
(18 weeks, 1 credit)**

Building upon experiences in the level 1 course, students in Materials Processing and Design 2 will engage in a variety of activities. Students will have the opportunity to select their own product as they investigate advanced machining.

A fee will be charged for materials used in projects kept by the student.

Prerequisite: Materials Processing and Design 1 or Exploratory Materials Processing and Design, C- or better, or approval of teacher.

**6463 Materials Processing and Design 3
(18 weeks, 1 credit)**

This course builds upon the CNC and machining concepts from Materials Processing and Design 2. Students will work with contoured surfaces as they explore the level 3, 3-D capabilities of the software.

Students will independently apply all concepts covered. Digital imaging and desktop publishing techniques are used as students continue to maintain a project portfolio.

A fee will be charged for materials used in projects kept by the student.

Prerequisite: Materials Processing and Design 2, C- or better, or approval of teacher.

World languages courses are offered only if there is sufficient enrollment.

World Language Quick Guide to Course Sequences				
Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
French 1	French 2	French 3	French 4 Honors (or French 4 if numbers permit)	AP French
		German 3	German 4 Honors	AP German
		German 1	German 2	German 3
		Latin 1	Latin 2	Latin 3
		Chinese 1	Chinese 2	Chinese 3
	Spanish 1	Spanish 2	Spanish 3	Spanish 4
	Spanish 1	Spanish 2	Spanish 3/4 in 1 year	Spanish 4/5 in 1 year
Spanish 1	Spanish 2	Spanish 3	Spanish 4	Spanish 5
Spanish 1	Spanish 2	Spanish 3	Spanish 4/5 in 1 year	AP Spanish
Spanish 1	Spanish 2	Spanish 3 Honors	Spanish 4 Honors	AP Spanish

The World Language teachers recommend that students double up at the high school level, taking two languages per year instead of one if possible. They also recommend that students complete a course sequence before switching to another language.

Any student who earns a C- must have the recommendation of the current teacher to move on to the next level.

4101 Chinese 1

(18 weeks, 1 credit)

The goal of this first-year language is to enable students to use fundamental expressions and vocabulary in oral and written context while integrating cultural elements. This course will focus on tones, rules of phonetic spelling, and pronunciation. Students will also learn Chinese characters: stroke order, structure, the writing systems, and calligraphic techniques (simplified characters will be taught). Students will learn basic sentence pattern analysis, and development of language skills in listening, speaking, reading, and writing.

4102 Chinese 2

(18 weeks, 1 credit)

The goal of the Chinese 2 course is to enable students to communicate effectively in the target language, to read, write, interpret and speak basic Chinese. Students will continue to use fundamental expressions and vocabulary in oral and written context while integrating cultural elements. This course will also continue the focus on tones, rules of phonetic spelling, and pronunciation. Upon completion of this course, students will be able to express their basic thoughts and ideas in writing and speaking. Students registering for this course must have a solid foundation in tones and pronunciation, as well as a working knowledge of basic vocabulary (i.e. greetings, simple sentences).

Prerequisite: Chinese 1, C or better.

4301 German 1

(18 weeks, 1 credit)

The goal of first-year world language courses is to enable students to use fundamental expressions and vocabulary in oral and written context, while integrating cultural elements. Level 1 courses emphasize communicative skills, relevant grammar concepts, and reading comprehension. CDs, videos, workbooks, and a variety of supplemental materials are used to help achieve this goal.

4302 German 2

(18 weeks, 1 credit)

Level 2 continues language study in the same patterns as Level 1. Students experience opportunities for more advanced oral and written self-expression and related cultural elements. More advanced grammatical concepts, vocabulary, and expressions are taught in complete sentences with an emphasis on speaking and writing. CDs, DVDs, videos, workbooks, and supplementary materials are essential parts of these classes.

Prerequisite: Level 1, grade C- or better. (If the grade is C-, then a recommendation from the world language teacher is needed.)

4501 Spanish 1

(18 weeks, 1 credit)

The goal of first-year language is to enable students to use fundamental expressions and vocabulary in oral and written context while integrating cultural elements. This course emphasizes communicative skills, relevant grammar concepts, and reading com-

prehension. CDs, videos, workbooks, and a variety of supplementary materials are used to help achieve this goal.

Prerequisite: The department recommends a C or better in the previous year's English course.

**4502 Spanish 2
(18 weeks, 1 credit)**

Level 2 continues language study in the same patterns as Level 1. Students experience opportunities for more advanced oral and written self-expression and related cultural elements. More advanced grammatical concepts, vocabulary, and expressions are taught in complete sentences with an emphasis on speaking and writing. CDs, videos, workbooks, and supplementary materials are essential parts of these classes.

Prerequisite: Level 1, C- or better. (If the grade is C-, then a recommendation from the world language teacher is needed.)

**4203 French 3
4303 German 3
4503 Spanish 3
(18 weeks, 1 credit)**

These courses continue earlier study with an increasing emphasis on speaking and writing. Students will review all previously studied concepts and be introduced to more advanced grammatical points. Culture is integrated throughout the curriculum. CDs, videos, workbooks, and supplementary materials are essential parts of these classes.

Prerequisite: Level 2, C- or better.

**4513 Spanish 3, Honors
(18 weeks, 1 credit)**

Spanish 3, Honors is a rigorous course designed to accelerate the student's proficiency and achievement in the skills of listening, speaking, reading, and writing. Reading will include literary works by well-known authors with literary analysis. Students will review all previously studied grammatical concepts and will study more advanced structures and their applications.

The students recommended for this course should strongly consider taking Spanish 4, Honors, followed by AP Spanish Language.

Honors weighted-grade course.

Prerequisite: Level 2, B+ average and the recommendation of the Spanish 2 teacher.

**4204 French 4
4504 Spanish 4
(18 weeks, 1 credit)**

These courses continue emphasis on listening, speaking, reading, and writing. Students will review previously studied grammatical points and be introduced to more advanced grammatical concepts. Selected readings and culture are infused throughout the curriculum. CDs, videos, workbooks, and supplementary materials are an essential part of these classes.

Prerequisite: Level 3, C- or better.

**4514 Spanish 4, Honors
(18 weeks, 1 credit)**

This course, which is a continuation of the Honors 3 sequence, is designed to accelerate the student's proficiency and achievement in the skills of listening, speaking, reading, and writing. Continued emphasis will be placed on reading and writing skills. Reading will include literary works by well-known authors with literary analysis. Students will complete the study of grammatical concepts and their applications. Increased emphasis will be placed on oral and aural discrimination.

The students recommended for this course should strongly consider taking AP Spanish Language as the culmination of the sequence.

Honors weighted-grade course.

Prerequisite: Level 3, Honors, B average and the recommendation of the Spanish 3 Honors teacher. Level 3 students may take Spanish 4, Honors with teacher recommendation.

**4214 French 4, Honors
4314 German 4, Honors
(18 weeks, 1 credit)**

These rigorous courses are designed to accelerate the student's proficiency and achievement in the skills of listening, speaking, reading, and writing. Emphasis will be placed on reading and writing skills. Readings will include literary works by well-known authors with literary analysis. Students will complete the study of grammatical concepts and their applications. Increased emphasis will be placed on oral and aural discrimination. The students electing these courses should strongly consider taking the AP Language course the following year as the culmination of the sequence.

Honors weighted-grade course.

Prerequisite: Level 3, C average or the recommendation of the Level 3 teacher.

**4505 Spanish 5
(18 weeks, 1 credit)**

This course allows students to apply all the skills they have learned in their previous years of study. The practical aspects of using the foreign language will be emphasized and expanded. Student involvement in class activities plays a major part in the course. Students will read a variety of materials. Compositions and conversations on familiar topics will be incorporated, and grammar will be thoroughly reviewed.

Fifth year foreign language does not prepare students for Advanced Placement examinations. Academic-level students may take AP Language courses after completing level 5 with an A- average or better.

Prerequisite: Level 4, C- or better.

4500 Advanced Placement Spanish
4300 Advanced Placement German
4200 Advanced Placement French
(18 weeks, 1 credit)

Advanced Placement Language is designed to prepare students for the AP Examination. Acceptable scores on this annual exam can result in college credit and/or advanced placement status at many of the nation's colleges.

In AP Language, students will continue to increase their proficiency in all four language skills: listening, speaking, reading, and writing. Students will integrate these skills and concepts using authentic resources, as well as literary works. Advanced grammatical concepts continue to be introduced and refined.

Students selecting this course should plan to take the Advanced Placement Language Examination given in May.

AP weighted-grade course.

Prerequisite: AP Spanish: Level 4 Honors, B or better; Level 5, B or better. AP French: Level 4 with teacher recommendation; Level 4 Honors, C or better or teacher recommendation. AP German: Level 4 Honors, C or better or teacher recommendation.

4401 Latin 1
(18 weeks, 1 credit)

Latin 1 emphasizes the skills needed to read, comprehend, and translate the language practicing grammar usage, vocabulary, with written and oral work. In addition, emphasis is placed on Latin-English word derivations, mythology, Roman life and cultural influences, with special attention given to the city of Pompeii and its subsequent destruction.

4402 Latin 2
(18 weeks, 1 credit)

Latin 2 continues the work of Latin 1. Advanced grammar concepts and vocabulary allow the student to continue reading, comprehending, and translating Latin passages. These passages, filled with cultural content, begin with Roman Britain and the city of Alexandria, and explore the arts and sciences of the regions, including baths, travel and communication. Special focus continues to be given to Latin-English word derivations.

Prerequisite: Latin 1, C- or better. (If the grade is a C-, then a recommendation from the world language teacher is needed.)

4403 Latin 3
(18 weeks, 1 credit)

Latin 3 continues the work of Latin 2, by using new and advanced grammar concepts, more subject-specific vocabulary, and figures of speech. Roman life and culture will be emphasized while exploring Roman religion, entertainment, architecture, and military camps of various Roman colonies. This course will also focus on appreciating and studying Roman poetry and poets. Special emphasis continues to be given to Latin-English word derivation.

Prerequisite: Latin 2, C- or better.

YEARBOOK

9568 Yearbook Production
(9 weeks every day or 18 weeks, A/B, .5 credit, elective)

This course is designed to provide yearbook staff with instruction in the various phases of yearbook production: yearbook journalism, layout and design, digital imaging, business management, advertising, and public relations. Students in this course design and produce the school's yearbook.

Note: A student may be on the yearbook staff without being enrolled in this course. A student may take this course for nine weeks for a second time.

Prerequisites: Grade B or better in English, and experience in at least one of these areas: photography, digital imaging, or business, or recommendation of the teacher/yearbook advisor.

NINTH GRADE COURSES.....	10	6949 Design and Prototyping.....	13	5525 Web Page Design.....	17
ART	10	6950 Technical Design and Graphic Illustration	13	5526 Advanced Web Page Design	17
8251 Drawing and Painting 1.....	10	6952 Creative Woodworking.....	13	5668 High School and College Computer Skills	17
8954 Three-Dimensional Design.....	10	6957 Communications Technology.....	13	ENGLISH.....	18
8360 Introduction to Ceramics.....	10	6958 Engineering and Production	13	0000 Honors English 10.....	18
8461 Photography 1.....	10	WORLD LANGUAGE.....	14	0020 Academic English 10	18
BUSINESS AND COMPUTER APPLICATIONS	10	4501 Spanish 1	14	0110 Advanced Placement English Language & Composition	18
5668 High School and College Computer Skills	10	4202 French 2	14	0100 Honors English 11.....	18
5525 Web Page Design.....	10	4502 Spanish 2.....	14	0120 Academic English 11	18
ENGLISH.....	10	HIGH SCHOOL COURSES.....	14	0200 Advanced Placement English Literature & Composition	19
0900 Advanced English 9.....	10	ART	14	0210 Honors English 12.....	19
0920 Academic English 9	10	8551 Art 1.....	14	0220 Academic English 12	19
0970, 0980, 0990 English 9	11	8552 Art 2.....	14	0660 Academic Writing Workshop	19
FAMILY AND CONSUMER SCIENCES.....	11	8553 Art 3.....	14	0601 Debate.....	19
6953 Sewing.....	11	8554 Art 4.....	14	0661 SAT Preparation: Vocabulary, Reading Comprehension and Analysis, and Written Expression.....	19
6954 Cooking.....	11	8360 Introduction to Ceramics.....	14	0662 Journalism.....	19
7950 Fitness/Health 9.....	11	8361 Ceramics 1	14	0665 Creative Writing.....	19
2900 Geometry/Trigonometry 2.....	11	8362 Ceramics 2	15	0668 Theater: Acting Workshop	19
2901 Geometry/Trigonometry 1.....	11	8363 Ceramics 3	15	0671 Shakespeare.....	20
2915 Accelerated Algebra 1	11	8251 Drawing and Painting 1.....	15	0672 Science Fiction.....	20
2916 Algebra 1	11	8252 Drawing and Painting 2.....	15	0673 Fiction and Film	20
2920 Introduction to Algebra	12	8461 Photography 1.....	15	0674 Media Production 1	20
2970, 2980, 2990 Mathematics 9	12	8462 Photography 2.....	15	0675 Media Production 2	20
MUSIC	12	8463 Photography 3.....	15	0676 Media Production 3	20
8965 Band 9	12	8464 Photography 4.....	15	0678 Media Production Practicum.....	20
8967 Chorus 9.....	12	8562 Computer Graphics: Illustration and Design	15	READING LAB.....	20
8966 Orchestra 9	12	8564 Digital Imaging.....	15	9100 Grade 12 Reading Lab	20
PEN (Gifted Program).....	12	8567 Introduction to 3-D Modeling and Animation	16	9102 Grade 11 Reading Lab	20
9901 PEN Seminar 9.....	12	BUSINESS AND COMPUTER APPLICATIONS	16	9104 Grade 10 Reading Lab	20
READING.....	12	5160 Accounting 1.....	16	FAMILY AND CONSUMER SCIENCES.....	21
4940 Reading 9.....	12	5260 Accounting 2.....	16	6159 The Young Child.....	21
4970, 4980, 4990 Reading 9	12	5161 Business Administration	16	6161 The School-Age Child.....	21
SCIENCE	12	5061 Business Today	16	6162 Living Independently	21
3900 Advanced Science 9.....	12	5660 Consumer Law & Business Ethics.....	16	6264 American Cuisine	21
3920 Academic Science 9.....	12	5661 Marketing & Advertising Fundamentals	16	6265 Global Gourmet	21
3970, 3980, 3990 Science 9.....	13	5667 Sports & Entertainment Marketing	16	HEALTH AND PHYSICAL EDUCATION	21
SOCIAL STUDIES	13	5062 Personal Finance	16	7061 PE/Health.....	21
1900 Advanced United States History	13	5163 Business Computer Applications.....	17	7062 PE/Health.....	21
1920 Academic United States History	13	5561 Media Design	17	7161 Physical Education/Drug Awareness Grades 11, 12.....	21
1970, 1980, 1990 United States History	13				
TECHNOLOGY EDUCATION.....	13				

7562 Advanced Health	21	8620 Music Technology	27	1210 Global Relations Honors	33
7064 Team Sports	21	8600 Advanced Placement Music Theory ..	27	1220 Global Relations Academic.....	33
7065 Lifetime Sports	22	PEN (Gifted Program).....	28	1160 Psychology – Grades 11, 12.....	33
7066 Personalized Fitness	22	9600 PEN–Grades 10–12.....	28	1161 Sociology – Grades 11, 12	33
7063 Fitness Trends	22	SCIENCE	28	1162 Introduction to the Law	33
7068 Aquatic Conditioning	22	3010 Honors Biology	28	Grades 10, 11, 12.....	33
MATHEMATICS	23	3020 Academic Biology	28	TECHNOLOGY EDUCATION	33
2640 Algebra 1	23	3100 Advanced Placement Biology	28	6360 Exploratory Architectural Design	33
2645 Geometry.....	23	3040 Practical Biology	29	6361 Architectural Design 1	34
2141 Algebra 2	23	3130 Human Anatomy and Physiology.....	29	6362 Architectural Design 2	34
2541 Applied Mathematics.....	24	3122 Applied Human Anatomy and Physiology	29	6363 Architectural Design 3	34
2520 Algebra 2/Trigonometry 1	24	29	6460 Exploratory Materials Processing and	
2122 Geometry/Trigonometry 2.....	24	3110 Honors Chemistry.....	29	Design.....	34
2221 Intermediate Math Concepts	24	3120 Academic Chemistry	29	6461 Materials Processing and Design 1....	34
2111 Accelerated Precalculus/Trigonometry 3	24	3140 Conceptual Chemistry	29	6462 Materials Processing and Design 2 ...	34
.....	24	3114 Organic and Equilibrium Chemistry. 29		6463 Materials Processing and Design 3 ...	34
2110 Precalculus/Trigonometry 3	24	3101 Advanced Placement Chemistry	29	WORLD LANGUAGE	35
2211 Advanced Mathematics Concepts.....	24	3224 Academic Physics.....	30	4101 Chinese 1	35
2101 Calculus 1.....	24	3225 Honors Physics.....	30	4102 Chinese 2	35
2103 Calculus 2.....	25	3102 Advanced Placement Physics: Newtonian		4301 German 1	35
2102 Advanced Placement Calculus AB.....	25	Mechanics	30	4302 German 2	35
2200 Advanced Placement Calculus BC.....	25	3103 Advanced Placement Physics: Electricity &		4501 Spanish 1	35
2625 Statistics and Data Analysis.....	25	Magnetism	30	4502 Spanish 2	36
2601 Advanced Placement Statistics	25	3640 Astronomy/Space Exploration	30	4203 French 3.....	36
9101 Grade 12 MATH LAB.....	25	3646 Geology and Environment	30	4303 German 3	36
9103 Grade 11 MATH LAB.....	25	3643 Oceanography	30	4503 Spanish 3	36
9105 Grade 10 MATH LAB.....	25	3121 Environmental Science	30	4513 Spanish 3, Honors	36
2523 Visual Basic.NET	25	3108 Advanced Placement Environmental Science		4204 French 4.....	36
2004 Introduction to Java	26	31	4504 Spanish 4	36
2005 Advanced Placement Computer Science A	26	3213 Forensic Science	31	4514 Spanish 4, Honors.....	36
.....	26	SOCIAL STUDIES, INCLUDING HISTORY AND		4214 French 4, Honors	36
2623 SAT Math Preparation	26	THE SOCIAL SCIENCES.....	32	4314 German 4, Honors	36
MUSIC	26	1101 Advanced Placement European History	32	4505 Spanish 5	36
8663 Concert Band	26	1111 Honors Modern World History	32	4500 Advanced Placement Spanish.....	37
8625 Jazz Lab	26	1120 Academic Modern World History	32	4300 Advanced Placement German.....	37
8660 Symphonic Band.....	26	1000 Advanced Placement U.S. History.....	32	4200 Advanced Placement French	37
8665 Jazz Ensemble.....	27	1012 Honors American Government and Economic		4401 Latin 1	37
8661 Chorus–Grade 10.....	27	Systems	32	4402 Latin 2	37
8662 Choir–Grades 11, 12.....	27	1022 Academic American Government and		4403 Latin 3	37
8664 Orchestra	27	Economic Systems.....	32	YEARBOOK	37
8667 Music Theory.....	27	1202 Advanced Placement Macroeconomics	33	9568 Yearbook Production.....	37
		1203 Advanced Placement Comparative			
		Government	33		



Central Bucks Mission Statement

The Central Bucks Schools will provide all students with the academic and problem-solving skills essential for personal development, responsible citizenship, and life-long learning.

Statement of Equal Opportunity

Central Bucks School District is an equal-opportunity institution which does not discriminate on the basis of race, religion, color, sex, age, national origin, or disability in its programs and services or in its hiring and employment practices.

For information regarding your civil rights, grievance procedures, or programs and services accessible to the handicapped, please contact N. Robert Laws, Ph.D., Superintendent, at the address below.

Central Bucks School District~20 Welden Drive~Doylestown, PA 18901~(267) 893-2000