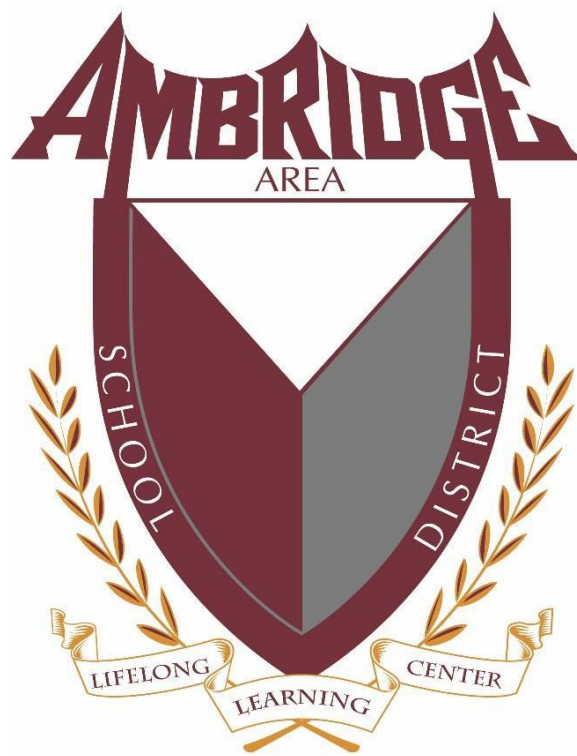


Ambridge Area High School



Course of Studies Book 2021 - 2022

AMBRIDGE AREA HIGH SCHOOL

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(724) 266-2833

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(724) 266-2833 ext. 2377

Ms. Chelsea Benedict – *9th & 10th Grade Counselor*
Mrs. Noel Santini – *11th & 12th Grade Counselor*
Mrs. Karen Brecht – *High School Social Worker*
Ms. Lisa Polidora – *Prevention Specialist*

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GENERAL INFORMATION

This booklet is designed to familiarize the students and parents of the Ambridge Area High School with our educational programs, courses, requirements/standards and scheduling procedures. The contents provide valuable information to help the students and parents plan a program of study and make the appropriate selections.

If you have any questions with regard to anything contained in this booklet, please do not hesitate to contact the High School Main Office or Guidance Office at (724) 266-2833 ext. 2377.

The Pennsylvania Department of Education requires that all students enrolled in schools within the state meet minimum scholastic standards before they can be granted a high school diploma. Additionally, the Ambridge Area Board of Education has established requirements which exceed those standards.

Please refer below to determine the required number of credits needed for graduation.

<u>Subject</u>	<u>Class of 2020-21</u>	<u>Class of 2021-22</u>	<u>Class of 2022-23</u>	<u>Class of 2023-24</u>
English	4	4	4	4
Social Studies	4	4	4	4
Mathematics	3 or 4*	3 or 4*	3 or 4*	3 or 4*
Science	3 or 4*	3 or 4*	3 or 4*	3 or 4*
H & P E	2	2	2	2
Freshman Seminar/ Computer Apps/ Tech Ed	Must Take .5	Must Take .5	Must Take .5	Must Take .5
Electives	5.0	6.0	6.0	6.0
Cumulative Career Project	*	Cumulative Career Project 1.0	Cumulative Career Project 1.0	Cumulative Career Project 1.0
<u>Total Credits</u>	22.5	24.5	24.5	24.5

Starting with the class of 2021 and beyond, elective credits can include additional Math, Science, English and Social Studies courses. 0.5 of the 5.0 or 6.0 credits must be comprised of Computer and Technology based courses. These courses may include: Coding, Internet Web Design, Stage Crew, Freshman Seminar, Newspaper, Yearbook, Music Technology I / II, Biotechnology and/or any class in the Technology Education Department. Any credits received over the required 0.5 Technology Education electives will be credited to the general electives graduation requirement.

**Students must achieve seven total credits in math and science combined in order to meet graduation standards. A minimum of three credits must be achieved in each area.*

***Students must achieve at a level of “Proficient” or “Advanced” on the Keystone Exam, as required by Pennsylvania Department of Education, to receive a diploma from Ambridge Area High School. Any student NOT reaching “Proficient” or “Advanced” on either the Keystone Exam or the Keystone retest will be required to show evidence of success in an alternate pathway that is approved by the school district and in Accordance to State Law Act 158.*

PROMOTIONAL STANDARDS -- Students must earn a “D” grade or a percentage of 60 as a final grade in order to receive credit for a particular course. It is expected that a student can achieve a minimum of six credits per year towards the 22.5 or 24.5 for the class of 2022 – on that is needed for graduation.

Students who fail a required course during their freshman, sophomore or junior years must successfully make up the course in a recognized and/or approved remedial or summer school program. These courses will be taught by Ambridge Area School District teachers at a fee to be determined. Courses can be completed through the Credit Recovery Cyber Program at Ambridge Area High School. Information can be found in the High School Guidance Office.

(For Seniors Only)

Participation in graduation is dependent upon fulfilling the outlined graduation requirements of 22.5 credits. Starting with the class of 2021-2022, graduation is dependent upon fulfilling the outlined graduation requirements of 24.5 credits. Should a senior fall short of the 22.5, or starting the year of 2021-2022 of 24.5 credits required, they ***will not*** be eligible to walk in the graduation ceremony of their class.

GRADING SYSTEM -- The grading scale used at Ambridge Area High School will be based on a four point system (i.e. A=4; B=3; C=2, D=1; E=0)

<i>Letter Grade</i>	<i>Percentage</i>	<i>Quality Points</i>
A	90% – to – 100%	4.0
B	80% – to – 89%	3.0
C	70% – to – 79%	2.0
D	60% – to – 69%	1.0
E	0 – to – 59 %	0.0

Grades in most classes will be calculated by percentage and be reflected as such on the report card.

WEIGHTED COURSES -- A student must earn an “A”, “B”, or “C” grade to receive the additional weighted value. A student who receives a “D” will obtain the credit value for the course but not the weighted value. The following is an outline of courses which have additional weight.

Weighted GPA will be calculated in two steps. The first step is to calculate a “Non-Weighted GPA” on a 4.0 scale. Once this GPA is calculated, an add on factor for “Advanced Placement” and “Honors” combined with the Non-Weighted GPA in the following manner. All course weight is assigned by course, not by grade level.

<i>AP / Dual Enrollment</i>	<i>Add On Factor</i>	<i>Honors</i>	<i>Add On Factor</i>
A	.50	A	.25
B	.40	B	.18
C	.30	C	.10
D	No Weight Assigned	D	No Weight Assigned
E	No Weight Assigned	E	No Weight Assigned

The following is a listing of the weighted courses:

- | | |
|---|--|
| Advanced Placement Biology | Italian III |
| Advanced Placement Calculus AB | Italian IV |
| Advanced Placement Calculus BC | Italian V |
| Advanced Placement Computer Science A-JAVA | Spanish III |
| Advanced Placement Computer Science Principles | Spanish IV |
| Advanced Placement Literature and Composition | Spanish V |
| Advanced Placement Language and Composition | Pre-Calculus |
| Advanced Placement Chemistry | Calculus |
| Advanced Placement Physics I | College Algebra (Dual Enrollment) |
| Advanced Placement Physics II | Statistics and Probability (Dual Enrollment) |
| Advanced Placement Physics C | Advanced Chemistry (Dual Enrollment) |
| Advanced Placement Physics C: Electricity and Magnetism | College Prep English 12 (Dual Enrollment) |
| Advanced Placement European History | CCBC Academies (Dual Enrollment) |
| Advanced Placement Psychology | CIHS Argument (Dual Enrollment) |
| Advanced Placement Environmental Science | |
| Honors Government & Economics | |
| Honors Communications III | |
| Honors Technology I | |
| Honors Technology II | |
| Honors World Cultures | |
| College Prep English II | |

CREDIT-RECOVERY: Students who fail to pass a required subject course during their freshman, sophomore, junior or senior year must successfully make-up the course in an approved credit recovery program in order to receive their diploma prior to graduation. During their senior year, a failing grade in a course needed for graduation may prevent participation in the graduation ceremony. **As District Policy states:** Participation in graduation is dependent upon fulfilling the outlined graduation requirements of 22.5 credits or 24.5 credits pending on the graduation class standing. Should a senior fall short of 22.5 or 24.5 credits in the required courses, they will not be eligible to participate in the graduation ceremony of their class.

Required subject areas and credit amounts needed for graduation are outlined in the student course selection book. The classes specifically include English, Math, Science, Social Studies and Health & Physical Education.

In order to plan accordingly, credit recovery is offered online during the school year at Ambridge Area School District through our cyber program at any time. Information for cyber credit recovery can be found on the Ambridge Area School District website.

A \$150.00 credit recovery fee is attached to each full semester course (1.0 credit) subject and must be paid in full prior to receiving a diploma. For a class that is half-semester in length (0.5 credit), a student will be required to pay \$65.00 for the class. Payments must be made in prior to registration or through increments during the student's educational years. Payments are due and required prior to graduation in order for the student to receive their diploma. Fees are subject to change during the school year based on enrollment.

If not already doing so, we strongly encourage the student to take the necessary steps for academic improvement prior to credit recovery including speaking with their teacher directly to schedule after school tutoring, and/or to arrange in advance a time to receive additional help in the subject area for continued success.

Student and parents will be notified of areas needed for credit recovery during their school year. It is advised the parent/student arrange a meeting to discuss credit recovery options with the Guidance Department during the course of the school year.

TRANSCRIPTS -- Transcripts can be obtained through the Guidance Office. Students are to complete the necessary form and submit it to the secretary. Transcripts will be ready within 24 hours of request. Transcripts will be forwarded directly to the college or institution. Transcripts, references and work permits will not be issued until all financial obligations have been met.

SCHOOL TO WORK -- School to work options continue to be explored for our students. Currently those seniors who select the Marketing - On the Job Training, OJT program are eligible to leave school early and receive credit for working during the school day. Students participating in this program are expected to have regular school attendance.

SPECIAL EDUCATION PROGRAM -- The Special Education Program is designed for students who possess unique instructional needs defined according to complex criteria established by the Pennsylvania Department of Education and State/Federal statutes. An "Individually Prescribed Educational Plan" is developed by parents and teachers to determine each student's course(s) of study. The combination of regular education and special education courses must meet the general requirement, credits or successfully obtain IEP goals for graduation. A variety of school-to-work opportunities will be explored for students as they demonstrate the abilities to be successful in such an environment.

GIFTED EDUCATION PROGRAM -- The Gifted Program is designed for students who possess exceptional academic talent(s) defined according to complex criteria established by the Pennsylvania Department of Education and State/Federal statutes. Students in this program, under the direction of their parents and teachers, develop "Individually Prescribed Educational Plans" which determine their course(s) of study. The Gifted Program is an enrichment program.

ADVANCED PLACEMENT COURSES -- Advanced Placement courses are offered in the areas of English, Social Studies, Mathematics and Science. Students taking AP Courses must take 4 courses in English and Social Studies and a combination of 7 courses in Science and Math.

JROTC -- The Marine Corps and the Ambridge Area School District have joined together to offer a JROTC program for our high school students. Leadership, life skills and citizenship will be emphasized in this program. Students who sign up will meet for one period a day for the entire year. This promises to be a very exciting opportunity.

SENIOR PROJECTS -- All seniors scheduled to graduate are mandated by the Ambridge Area School Board of Directors to complete a senior graduation project. This project must be presented to a committee formed through the High School staff. Failure to complete the project will jeopardize receipt of a high school diploma. As the school year begins, specific details and guidelines about this project will be published and discussed. Working together, all students will be able to fulfill this requirement.

NCAA ELIGIBILITY -- Student athletes are reminded that if they have aspirations of participating in athletics at the Division I or II level, they must be cleared academically by the NCAA before eligibility to participate will be granted.

Before an athlete can play a sport or receive an athletic scholarship at a Division I or II college, he/she must meet specific academic criteria as set forth by the NCAA. A student must have at least a 2.0 GPA (based on a 4.0 scale) in 16 core courses. 10 of the 16 cores must be completed before the 7th semester of high school. 7 of the 10 cores must be English, Math or Science. A student must also take the ACT or SAT and score a minimum as determined by the NCAA. To be eligible at a Division I school, the student with a minimum GPA will need a high test score, and the student with a minimum test score will need a higher GPA.

Students must take specific courses in order to meet NCAA eligibility requirements. These include a certain number of college preparatory English, Science, Social Science, and Math courses, with at least three math credits Algebra I and above. Because the NCAA has such specific requirements, and because these requirements can be confusing, *it is very important that athletes meet with their guidance counselors to obtain information on all of the NCAA requirements.*

Athletes should take the ACT and the SAT no later than the spring of their junior year in order to have time to retake them if necessary. In order to initiate the eligibility process, athletes also need to complete a profile with the NCAA Eligibility Center. This profile should be submitted *after completion of the junior year*. Further information is available in the Guidance Office or www.eligibilitycenter.org.

COLLEGE PREP CURRICULUM -- College bound students are strongly encouraged to take college prep courses in order to ensure success at the college level. Research has shown that students who take the Honors and advanced courses do extremely well when they leave the high school and go on to higher levels of learning. Please keep this in mind when making all selections.

PLANNING FOR POST HIGH SCHOOL EXPERIENCES -- Beginning with ninth grade and continuing through tenth and eleventh grades, students are advised to study entrance requirements. The High School Guidance Office has a number of resources for researching career and post-secondary education choices. Catalogs for many colleges, universities, trade schools, nursing schools, etc. are available to aid students and their parents in determining their eligibility for admission. Students are encouraged to talk with acquaintances, friends, relatives, and parents already employed in areas of future interest and check with counselors to make certain that they will meet the requirements necessary to enter their chosen field of endeavor.

NATIONAL HONOR SOCIETY -- AAHS is proud to recognize successful students. Selection into the National Honor Society is a great achievement for any student. The selection process begins with academics. Students must qualify with specific grade point averages. Juniors must have a cumulative 3.6 or higher after 5 semesters. Seniors can qualify with a cumulative 3.6 after 7 semesters. In addition to these grade point requirements, students will also be evaluated on their involvement in activities and clubs as well as character ratings.

HIGH HONOR ROLL & HONOR ROLL -- To be on the High Honor Roll, students must earn an "A" grade in all subjects meeting five days per week. There may be one grade of "B" in one of these subjects. There may be no grade lower than a "C" in subjects meeting less than five times per week. An incomplete "I" grade disqualifies a student from the High Honor Roll.

To be on the Honor Roll, students must earn a "B" in all subjects meeting five times per week. There may one grade of "C" in one of these subjects. There may be no grade lower than a "C" in subjects meeting less than five times per week. An incomplete "I" grade disqualifies a student from the Honor Roll.

The honor roll will be generated four times a year and will be based only upon grades for each individual nine week period.

REGISTRATION INSTRUCTIONS -- Planning your schedule for senior high school requires an appraisal of your capabilities, interests, goals, and past performance. You should become familiar with the courses of study and prerequisites necessary to meet graduation requirements and future goals. The course offerings at the high school are flexible enough so that all students, regardless of their post-graduation plans, may take a variety of elective courses. Please remember that because of staffing, class size and budgetary decisions, changes are discouraged after August 1st, of the upcoming school year.

Students should review this course booklet in order to make informed choices concerning their future schedules. After consulting with your subject teachers, counselor and parents, the completed schedule form, with the parent's signature, must be returned to the Guidance Office. All students must plan a schedule that fits into a nine period day and should include lunch. Students who fail to do this will not be scheduled in a timely fashion and may not receive the courses of his/her first choice. Students must fill in at least two alternative elective selections in the event that changes need to be made. If these procedures are followed, your proposed schedule should require no changes. If a schedule form with the parent's signature is not returned to the Guidance Office, a schedule will be devised based on requirements and the student's past performance.+

AMBRIDGE AREA CYBER ACADEMY:

The Ambridge Area School Board approved a partnership between Ambridge Area School District and Seneca Valley Academy of Choice, resulting in the creation of our own cyber/hybrid alternative for students. Highlights of the Ambridge Area Cyber Academy are as follows:

1. Free personalized education plan for AASD students
2. Resources of caring, highly qualified AASD professional staff
3. A Cyber Lab to utilize at the high school
4. An array of extracurricular activities and clubs
5. Flexibility of scheduling, guidance counselor services, and scholarship opportunities
6. Opportunities to be creative, productive, discover, and explore potentials
7. Teaches students responsibility, time management, self-discipline, dedication, independence and a global perspective
8. Upon completion of all graduation requirements, students will graduate with an Ambridge Area Diploma
9. Courses are aligned to the AASD Common Core Curriculum
10. Students will earn letter grades on both report cards and transcripts
11. If meeting eligibility, students can also participate in all Ambridge Area-sponsored events including Homecoming, Prom, graduation, athletics and activities.
12. Physical Education can be completed at a local gym as a Pass/Fail course. (Medical Documentation on file may be required and at the administrations discretion prior to acceptance in a cyber PE course.)
13. Health screenings are offered at school

Requirements / Pre-Requisites:

1. Any senior enrolled in the cyber academy must complete all graduation and senior requirements prior to graduation in order to receive their diploma.
2. An application to enroll in the cyber program **must be completed on-line** prior to enrollment on the district website at www.ambridge.k12.pa.us.
3. The ability to enroll in a cyber program is only available during the beginning (first week) of each 9-week grading period.
4. The timeframe for scheduling is due to the nature of classes being assigned as a nine-week portion of a curriculum. Adhering to this time schedule will ensure that no student has insufficient time to complete the required amount of work for a grading period.
5. Enrollment past the scheduling time frame will be reviewed as per case-basis. Exceptions to the enrollment period and curriculum will be at the discretion of the administration.
6. Medical documentation may be required for cyber enrollment, including but not limited to enrolling in the Health and Physical Education cyber program.
7. Once an application is received, it will be reviewed by our educational team to determine the best placement for the student.
8. A parent/teacher conference may be scheduled in order determine the best course of action for the student.
9. The criteria for enrollment that are examined include the following: Attendance; Motivation and Potential Success; Academic Success; Medical Documentation as per need basis.
10. Students must complete all requirements as listed.
11. Attendance by actively logging in and completing the material is mandatory, and will be monitored. Any violation of not actively completing the course hours required online will be handled through our administration and truancy office.
12. Students required to take the Keystone Exams based on courses scheduled must report to the school to do so as per state requirements.

If you would like to know more about our program, please feel free to contact the district at 724-266-2833 and/or visit the district website at www.ambridge.k12.pa.us.

WITHDRAWN-FAILING POLICY AND CODE: It is advised that a student only “Withdrawal-Fails” a course under extenuating circumstances due to the finalization of information on their permanent educational record. The student is encouraged to work towards achieving *at a minimum* a passing grade (60% or above) to ensure earned quality points are received in lieu of receiving a “0” for quality points, an “F” in the class and zero (0) earned credits.

If a class is dropped *after* the first two (2) weeks of the course or at any point thereafter in the school year, the grade in that subject area will be “W-F” or “Withdrawn-Failing.” A “W-F” under school policy and code will be computed in the student’s overall grade

point average as an F (0 quality points) and zero credit will be received for that class. A student may be required to make-up the credit if needed for graduation.

A “Withdrawn-Failing” or “W-F” will be factored into a student’s overall cumulative grade point average during their high school years, which may significantly decrease the students overall earned grade point average. The grade will also be placed on their permanent educational record and transcript. Any student who opts to receive a “W-F” will receive 0 quality points that is factored into their final cumulative grade point average and reflected on their final transcript upon graduation.

Due to the “W-F” placement on a permanent educational record and final transcript, we strongly advise the student to take the necessary precautions and steps prior to withdrawing from the class. Students are advised to use the educational resources made available to them throughout the school year including checking Tyler for weekly grades and assignments for any due or missing work to ensure work is completed in a timely manner.

We also strongly encourage the student to speak with their teacher directly to schedule tutoring after school for academic success and/or to arrange in advance a time to receive additional help in the subject area prior to withdrawing from the class. Failure letters are also delivered each quarter to ensure all members involved in the student’s educational plans are aware of the current grades throughout the academic school year.

In order to ensure active learning, students are also encouraged to continue maintaining positive attendance and to be actively participating in class, as well as ask any questions if material is not understood.

Additionally, a parent/teacher conference should be held to discuss the matter further in order to determine if dropping the class is the best course of action for the student. As understood, special circumstances may arise in which case administration will review the student’s educational information and make the final determination at their discretion.

Prior to “Withdrawn-Failing,” a parent/guardian signature and the teacher of record must be on file to ensure all parties are notified of the decision. In every effort to ensure a collaborative approach, a “Withdrawn-Failing” form must be completed to ensure all information in regards to the decision and policy is disclosed and acknowledged prior to approving the student’s request.

As always, if you have any questions or academic concerns in regards to the specific subject area, you may contact the student’s teacher of record directly from the directory provided on the District Website. For additional educational guidance and information, questions may also be directed to the Guidance Department at any time.

STUDENT TRANSFER OF CLASSES / SCHEDULE CHANGES: Any course, whether semester or full year in length, which is dropped or changed before the drop-add deadline is over (*2 week scheduling time-frame*), will not appear on the student’s transcript or be factored into the cumulative grade point average of the student. We advise the student to make any schedule changes during the drop-add time frame with their school counselor to ensure their scheduling needs are met.

When a student transfers from one course to another within the same subject area after the midpoint of the first quarter, the grade will also be transferred.

Questions in regards to scheduling or a request for additional information is available in the Guidance Office at (724) 266 – 2833, ext. 2377.

TESTING INFORMATION -- The testing program at the high school encompasses a variety of tests which serve several purposes. While some of these tests are mandated, others are administered as a service to students and their families.

PSAT 8/9: All 9th grade students will be eligible to take the exam in the spring of their freshman year. Students will cover the cost of the exam.

PSAT 10: All 10th grade students will take this exam in the spring of their sophomore year. District will cover cost of the exam.

PreACT: All 10th grade students will be eligible to take the exam in the spring of their sophomore year. Students will cover the cost.

ASVAB: All 10th grade students will take this exam in their sophomore year. No cost to students.

PSAT/NMSQT: Optional to all 11th grade students. The test will take place in the fall of their junior year. Students will cover the cost of this exam.

ACT: All 11th grade students will test in the spring of their junior year during the school day. District will cover the cost of this exam.

SAT: SAT Saturday testing will be offered in October and March at Ambridge Area High School.

The following chart provides basic information on the Ambridge Area School District testing schedule

GRADE LEVEL	TEST	DEFINITION OF TEST	PURPOSE
9	CDT PSAT 8/9 Keystone Exam Career Interest Survey	Algebra I, Biology Algebra I, Biology Career Cruising	Assess student growth State Assessment Compare interests and abilities with available options and training programs
10	CDT Keystone Exam PSAT 10 PreACT ASVAB	Algebra I, Biology, Literature Algebra I, Biology, Literature Preliminary Scholastic Aptitude Test Armed Services Vocational Aptitude Battery	Assess student growth State Assessment Acquaint students with SAT material Assess student aptitude
11	CDT Keystone Exam PSAT/NMSQT AP Testing SAT I SAT II ACT	Algebra I, Biology, Literature As Needed Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test Advanced Placement Testing Scholastic Aptitude Test Scholastic Aptitude Test American College Test	Assess Student Growth State & District Mandated Acquaint students with SAT material College placement evaluation College admission evaluation College admission evaluation College admission evaluation
12	SAT I SAT II AP Testing ACT	Scholastic Aptitude Test Scholastic Aptitude Test Advanced Placement Testing American College Test	College Admission evaluation College Admission evaluation College Placement evaluation College Admission evaluation

PLANNING FOR COLLEGE

STEP ONE

- ❑ Select appropriate courses and a challenging academic program. Consult the Guidance Department for the Recommended Course Sequences charts for appropriate English, Math, Science, and Social Studies courses. Plan as rigorous a program as you can within your abilities.

STEP TWO

- ❑ Give your studies maximum effort. Although all phases of your high school record are considered for college admission, scholastic achievement is the most important single item. College admissions 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 making sure that a part-time job does not interfere with schoolwork. It means asking for help from your teachers if you are having difficulty or have missed classes because of illness.

STEP THREE

- ❑ Plan a well-rounded program. Colleges are interested in the degree to which a student has contributed to the life of the school or community. Make sure that a part-time job does not prevent you from participating in athletics, music, drama, or other school activities which interest you.
- ❑ 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 "newspaper" on your transcript.
- ❑ If you are planning to apply to highly selective schools, it is essential to have something which will set you apart from the thousands of other applicants who also have good grades and SAT I scores. An outstanding admissions interview or especially thoughtful and well-written answers to essay questions on your application can make a difference.
- ❑ Mention special talents, abilities, achievements, or experiences, which might not be included in our high school record, such as extensive travel, fluency in another language, or ability in a non-school area such as ballet or gymnastics.

STEP FOUR

- ❑ 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.
- ❑ Both you and your parents should plan to attend at least one of the evening financial aid information programs provided by the Guidance Department, along with the College Fair, which is scheduled each spring locally. Colleges also send representatives to our high school throughout the year to meet with interested students.
- ❑ The Guidance Office contains a wealth of resource materials, including college guides, catalogs, videos, and computer programs which you and your parents may view.
- ❑ After learning all you can about the application process, you should write to colleges for information and application forms. It's also important to visit the colleges which interest you, so that you can schedule interviews with admissions counselors and get a real idea of what the school and campus are like.

STEP FIVE

- ❑ Write all college letters and applications with care and come prepared for college interviews. Students should make sure that all written communications to a college -- even a simple request for information -- are neatly written and proofread.
- ❑ If you wish to be considered for financial aid, add this sentence to your letter asking for an application: "My parents will be filing the financial aid form with the College Scholarship Service, and I am asking that a copy of the statement be sent to you so that I may be considered for financial aid. If your college has a special form for applying for such aid, I would appreciate its inclusion with the admission application."
- ❑ Come to college interviews on time, appropriately dressed, and prepared with thoughtful questions. Send a letter of thanks after the interview.
- ❑ Students are often overwhelmed by applications when applying for college, especially applications which ask for extension essay questions. Be sure to give yourself plenty of time to fill them out before the deadline.

- ☛ Take time with essay questions. Revise and edit your responses and have someone proofread your answers before you write them on the application.
- ☛ When personal or teacher references are required, ask the permission of the individuals whose names you intend to give. If reference forms have been sent by the college or letters have been requested, provide an adequate number of stamped, addressed envelopes to your references.
- ☛ Give teachers, counselors, or community members plenty of advance notice to write recommendations for you. They have many demands on their time, and a hastily written recommendation will not help your application.
- ☛ Official transcripts must be mailed with your application from the Guidance Office. It takes time for the office to prepare your transcript, especially when many students are applying to college at the same time. Request transcripts at least a week in advance of when you will need them.
- ☛ Once you have completed an application, attach a check or money order for the application fee and submit the application to your counselor, along with a Transcript Request Form (available in the Guidance Office) and an addressed envelope with sufficient postage. Please allow two weeks or more for your application to be processed.
- ☛ Don't forget to request that SAT I, ACT, and SAT II scores be sent to the colleges to which you are applying. The Guidance Office can supply the necessary information about how to do this.

STEP SIX

- ☛ 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 guidance counselor on how to apply for financial aid.
- ☛ 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 can help you with scholarship information. Scholarship announcements and college information are provided throughout the year in the Guidance Office.
- ☛ Plan to participate in the pre-examination for practice and preparation including the PSAT 8/9, PSAT 10, Pre-ACT and the PSAT/NMSQT. Practicing the exams provided by the Ambridge School District will allow exposure and assistance to the testing format, structure and test questions prior to the college examination.

Colleges also consider your scores on the Scholastic Aptitude Test (SAT I), SAT II, or Advanced Placement examinations. The PSAT 8/9, the PSAT 10, PreACT, ASVAB and the PSAT/NMSQT will give you valuable experience in preparing for the more important SAT I exam.

Scores on the PSAT taken by juniors are used to determine National Merit Scholarship Test semifinalists and commended students for the following school year. Students should be sure to take the test in their junior year even if they have taken the test as sophomores.

Students should not take either the PSAT or the SAT I without careful preparation. It is recommended that a student should not take the SAT I without completing Algebra and Geometry since these skills are required for the math portion of the test. At the very least, students should carefully read the PSAT and SAT I books prepared by the Educational Testing Service and provided by the Guidance Office when you register for the test. The books contain valuable test-taking tips and information, along with practice tests. More selective colleges also require students to take one or more SAT II as well as the SAT I, otherwise known as the SAT Subject Tests.

Students who take Advanced Placement courses will be expected to take the appropriate AP examination. When you take the AP examination, you can compare your ability with students across the country. A good AP score will also reflect well on academic abilities when colleges consider a transcript. If the score is high enough on the AP exam (qualifying scores vary among colleges), many colleges will award college credits and will permit skipping the beginning level of a course. This can save a student both money and time.

Students sometimes 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. But even if a high AP score is achieved, any courses can still be selected in college. No college will require that a course be skipped.

Please remember that students must register for all these tests well before the date they are given. All application forms and test information can be obtained from the Guidance Office or www.collegeboard.com.

Ambridge Area High School's code for the SAT I, and the ACT is **390070**.

ADMISSION CRITERIA AT COMPETITIVE COLLEGES

- | | |
|--------------------------------------|---|
| 1. Courses Taken | 6. Application Questions and Essays |
| 2. Grade Point Average | 7. Personal Interview (if available) |
| 3. ACT Scores | 8. Activities Outside The Classroom |
| 4. SAT I Scores (possibly SAT II) | 9. Special Talents, Skills, and Interests |
| 5. Counselor/Teacher Recommendations | |

BEAVER COUNTY CAREER AND TECHNOLOGY CENTER

Students must complete and submit their application for attending the Beaver County Career and Technology Center to the Transition Coordinator before scheduling of the next school year. Student grades, attendance and number of seats available at the BCCTC determine program acceptance. Applications for the BCCTC will not be accepted during the summer break. Students who miss more than 10 absences will be placed on administrative review. During this review, it will be determined if the student will continue his/her program at the Beaver County Career and Technology Center. Students who complete their designated program will receive 6 elective credits and one additional Math AND Science credit towards Ambridge Area High School graduation requirements.

The Beaver County Career and Technology Center is an extension of your senior high school, which offers vocation-technical courses. Each occupational program prepares students to enter the job market with a salable skill. Career and technology courses are two-year programs for students enrolled in grades 11 and 12, which meet three hours per day for a total of 1080 hours. Select programs begin at the BCCTC in the 10th grade. Students will need to see their guidance counselor for select programs. Students interested in the Cosmetology Program should see their guidance counselor as the requirements differ slightly for this program. Students participating in the Cosmetology Program will need to start in the 10th grade year.

The decision-making process, as it applies to student selection, becomes a cooperative procedure shared by both the home school and the BCCTC counselor, with the final decision made at the home school. Each student/ applicant will be notified in writing of the student's acceptance to attend the BCCTC as soon as possible after the decision has been made.

An Orientation Program is held for all 10th grade students; this is followed up by a visit to the Beaver County Career and Technical Center for all students interested in a technical program. Past grades and daily attendance are factors, which determine eligibility, as well as meeting graduation requirements. Where prerequisites are required, the requirement must be fulfilled before the student will be considered for the course.

COURSES OFFERED

Automotive Technology	Greenhouse/Landscaping
Business Information Systems	Health Occupations
Carpentry	HVAC-R
Collision Repair Technology	Logistics & Materials Management
Commercial Art & Design	Machine Tool Technology
Cosmetology	Masonry/Bricklaying
Culinary Arts	Veterinary Assistant
Electrical Occupations	Welding
Graphic Arts & Printing	

ART DEPARTMENT

The Art Department offers a wide variety of electives to the student body. Students are given numerous opportunities to develop their skills and talents in order to learn how to access their individual creativity. Upper level courses prepare students for an artistic career post-graduation. Students will begin to understand how art affects their own community as well as world cultures through various community art projects and art history lessons.

0115
ART I – BEGINNING STUDIO ART
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5

This course was designed as a rigorous introduction to visual arts for the student who has an interest in art. Many forms of art will be explored. Students will have an opportunity to enrich their understanding of areas such as drawing, painting, ceramics, sculpture and crafts.

Prerequisite: None

0120
ART II – INTERMEDIATE STUDIO ART
Weeks: 18
Grades 9, 10, 11, and 12
Credit: 0.5

This course offers an advanced approach to drawing, painting, sculpture, and crafts. Students will be able to create works using their unique subject matter while remaining in the scope of the art concepts being presented.

Prerequisite: PASSING GRADE AND teacher approval from Art 1.

0125
ART III—ADVANCED STUDIO ART
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

This course places emphasis on further developing individual art skills. Students will have more freedom to use their creativity and work independently in a variety of art media. The focus will be on beginning to build a portfolio of work. These students also will play a role in creating and assisting with Art Shows.

Prerequisite: PASSING GRADE and teacher approval from Art II.

0130
ART IV
Weeks: 18
Grade: 10, 11, and 12
Credit: 0.5

This course provides students opportunity for further artistic development in creating original works of art. Students will research and provide documentation for a specific area of art they wish to pursue, such as painting, sculpture, etc. The focus will be on finalizing a portfolio of work. These students also will play a role in creating and assisting with Art Shows.

Prerequisite: PASSING GRADE and teacher approval from Art III.

0170
Art V Independent Study
Weeks: 18
Grades: 11, and 12
Credit: 0.5

This course is designed for the serious art student who would like to develop skills beyond Art IV. Students will further strengthen and develop their portfolio in their preferred medium. Artistic career options will be explored and researched during the course.
Prerequisite: PASSING GRADE and teacher approval from Art IV.

0135
DRAWING I
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

This course will implement basic drawing techniques. Media such as pencil, charcoal, pastels, markers, and pen and ink will be explored. Emphasis will be on correct value, perspective, and spatial awareness.
Prerequisite: PASSING GRADE in Art I.

0140
DRAWING II
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

This course will build upon skills and techniques learned in Drawing I. Advanced techniques will be taught and emphasis will be on creating pieces to build a drawing portfolio.
Prerequisite: PASSING GRADE and Teacher Approval from Drawing I.

0150
JEWELRY MAKING
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

This course is designed to provide students with the opportunity to create functional jewelry and decorative items through the implementation of many different techniques and processes. Basic jewelry methods and tools will be introduced.
Prerequisite: PASSING GRADE and teacher approval from Art I.

0155
CERAMICS/SCULPTURE
Weeks: 18
Grades: 11 and 12
Credit: 0.5

Students will learn to create three dimensional sculpture through ceramics and a variety of other medium. During the course of the semester the students will gain knowledge of basic ceramic hand-building processes, and various sculptural methods.
Prerequisite: PASSING GRADE and teacher approval from Art I.

0160
PAINTING
Weeks: 18
Grades: 11 and 12
Credit: 0.5

Students will explore multiple paint mediums and techniques. This course will teach students to use the proper surface for each unique medium as well as how to properly stretch a canvas. Students who intend to further their career in the arts will benefit from.
Prerequisite: PASSING GRADE and teacher approval from Art I.

CCBC AVIATION ACADEMY

Ambridge Area High School is proud to be associated with the CCBC Aviation Academy. We offer dual enrollment for students interested in aviation careers who also meet the program requirements, as specified by CCBC. Students in grades 11-12 are eligible for this program. Additionally, monetary fees are determined by CCBC. Additional information of this program can be found in the Guidance Office or by contacting the Aviation Director Nicole Fink at 724-480-3600 or via e-mail Aviationchampion@ccbc.edu. Students enrolled in the CCBC College in High School Program will earn (1.00) Math, (1.00) Science, and (3.00) elective credits towards graduation at Ambridge Area High School.

JUNIOR YEAR

Fall Semester

AVIP102/AVIP100

INTRODUCTION TO AVIATION & PATHWAYS/TITAN TRANSITION

A computer course designed to introduce students to personal computers. Topics include basic concepts of computer operations, storage media, software categories, Windows operating system, computer communication devices, and the Internet. The course also includes introduction to Microsoft Word, Excel, Access and PowerPoint.

WRIT 101

ENGLISH COMPOSITION

Students will practice expository writing and learn the academic form of the essay and research paper. Students will focus on the development of an academically sound and challenging thesis and resulting essay. The mechanics of writing will be reviewed as needed.

Spring Semester

AVIP 110

FLIGHT THEORY

The scientific principles of flight, basics of air traffic control technology, meteorological fundamentals, aerospace engineering tenets, navigational procedures and airplane operations that are pertinent to the Private/Recreational Pilot are studied. Upon successful completion of this course (as defined by a grade of 80% or better) the student will receive an endorsement to take the FAA knowledge exam.

AVIP 123

AERONAUTICAL KNOWLEDGE

This course is designed to explain airplane power plants (engines) and flight instruments; explain the airspace structure and the implications of each segment; explain the major forces impacting aviation weather and practical applications of aviation weather charts and forecasts; utilize flight publications in a proficient manner; and explain the physiological factors that affect a pilot while focusing on the Aeronautical Decision Making model.

SENIOR YEAR

Fall Semester

AVIP 101

HISTORY OF AVIATION

Historically, the development of aviation was closely aligned with Western civilization. Therefore, History of Aviation provides students with a solid foundation from a near-global perspective, beginning with the earliest myths and legends through the advent of powered, heavier-than-air flight. As Aviation emerged as a major catalyst, dramatic changes occurred in economics, foreign policy, and communications. With a foundation of interdisciplinary knowledge in place, the course asks students to assess how the emergence of key aviation technologies has impacted varied Nations and cultures across the globe as diverse as there are differing demographics. The course will end with a consideration of futurist perspectives on the role of aviation as a global, dynamically charged, force.

MATH130
COLLEGE ALGEBRA

The functional approach is stressed with such topics as properties of the real number system, linear functions and equations, exponents, radicals, functions, systems of equations, complex numbers, quadratic equations, and additional topics at the discretion of the instructor.

Spring Semester

AVIP 136
THEORY OF INSTRUMENT FLIGHT

This course includes basic radio fundamentals as used by instrument pilot and the air traffic controller. A description and practical use of various radio aids to safe aerial navigation, including VOR, ILS, ADF, GPS and others are taught. Instrument charts and instrument approach charts are adapted to radio navigation and the application of the Aeronautical Information Manual is studied. Upon successful completion of this course (as defined by a grade of 80% or better), the student will receive an endorsement to take the FAA knowledge exam in the department for an additional fee.

AVIP 131
AVIATION METEOROLOGY

This course places special emphasis on interpretation of meteorology phenomena affecting aircraft; basic concepts of aviation meteorology; temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing and fog. The course covers analysis and use of weather data for flight planning and safe flying; interpretation of weather maps, reports and forecasts.

CCBC HEALTH ACADEMY

The CCBC Healthcare Academy gives students the opportunity to earn up to 28 college credits toward an associate degree in nursing or radiologic technology as well as a diploma in practical nursing. Students can enter into the program at the beginning of their junior year as long as they meet the following requirements: Grade point average of 2.75, Good Attendance, Good Conduct, and recommendation from principal or guidance counselor. High School prerequisite courses: Biology with lab, Chemistry with lab, Algebra I, Algebra II or other college preparatory math. Any questions please contact the office of the Health Academy Director Sherri Busch at 724-480-3489 or via e-mail at HealthChampion@ccbc.edu. Students enrolled in the CCBC College in High School Program will earn (1.00) Math, (1.00) Science, and (3.00) elective credits towards graduation at Ambridge Area High School.

JUNIOR YEAR

Fall Semester

HLTH 101

COLLEGE SUCCESS STRATEGIES FOR HEALTH CAREERS

This course empowers students to reach their educational and professional goals by examining learning strategies and skills for success and gaining an understanding of the commitment needed to flourish in challenging nursing and allied health higher education programs. Students are introduced to health care careers at Community College of Beaver County and oriented to academic resources, program requirements, policies, and procedures typical to institutions of higher learning. Students also consider the importance of lifelong learning and success in the professional healthcare workplace.

BIOL201

HUMAN ANATOMY & PHYSIOLOGY I

This course is a basic study of human anatomy and physiology. Topics include levels of organization, body divisions and cavities, basic biochemistry, cell structure and metabolism and histology. Structure and physiology of the following systems include integumentary, muscular, skeletal, respiratory, and urinary. Fluid and electrolyte balance is also discussed. The laboratory is an integral part of the course.

Spring Semester

WRIT101

ENGLISH COMPOSITION

Students will practice expository writing and learn the academic form of the essay and research paper. Students will focus on the development of an academically sound and challenging thesis and resulting essay. The mechanics of writing will be reviewed as needed.

Pre-requisite: Placement testing; successful completion of DEVS012 Reading and DEVS015 Introduction to College Writing if required; permission of the Division Director

BIOL202

HUMAN ANATOMY & PHYSIOLOGY II

This course is a continuation of BIOL201. Structure and physiology of the following systems are included: nervous and its divisions – endocrine, cardiovascular, lymphatic, digestive, and reproductive. Other topics including the composition of blood, immunity, human genetics, and development are also discussed. The laboratory is an integral part of the course.

SENIOR YEAR

Fall Semester

HSC1203

INTRO TO HEALTH CARE INFORMATICS

This course is designed to provide students with concepts about information technology by demonstrating skills such as basic computer literacy, acknowledging reliable internet resources and integrating patient care technologies into safe health care practice. Students considering nursing or other healthcare careers will benefit from the information provided.

PSYC101
GENERAL PSYCHOLOGY

This course examines the scientific study of behavior and mental processes and provides a survey of the major areas of psychology. Important topics and findings from psychology are reviewed. Topics include the role of science in the study of behavior, the biological foundations of behavior, learning, information processing, stress and health, social interaction, development, motivation, emotion, and psychological disorders.

HLTH 102
HEALTH PRE-ADMISSION PREP COURSE

This course prepares students interested in health careers to achieve the most competitive application for admission as is possible by the individual student. Students participate in educational sessions that prepare them for standardized pre-entrance exams required for matriculation into health care programs including Radiologic Technology, Associate Degree in Nursing, and Practical Nursing programs at Community College of Beaver County and other institutions of higher learning. This course provides a general overview of topics covered on the standardized exams and basic test-taking strategies. Students learn how to navigate the college system to complete the admission process and prepare for exams by analyzing questions.

Spring Semester

PSYC106
HUMAN GROWTH & DEVELOPMENT

This course is a survey of human development from conception to senescence. Attention will be given to the physical, motor, emotional, personality, and social growth of the individual in infancy, childhood, adolescence, adulthood, and senescence.

LITR210
CONCEPTS OF LITERATURE

The course introduces students to the three major forms of literary expression: fiction, poetry, and drama. Significant works from each form will be analyzed to reveal creative techniques, how they represent an author's time, and how they reflect today's human condition.

HLTH 103
PORTFOLIO CAPSTONE PROJECT - HEALTH ACADEMY CAPSTONE COURSE

This course provides an opportunity for Health Academy students to complete a self-analysis of career interests and highlight personal achievements in the program. Students will research a health career of personal interest and develop a plan to achieve completion of a degree or certification in a chosen health care field. The course will culminate with completion of a portfolio demonstrating achievement of program outcomes and highlighting the student's overall collegiate experience

Summer (optional)

BIOL215
MICROBIOLOGY

Microscopic forms of life are considered with emphasis on bacteriology as it applies to numerous areas in industry, health, and sanitation. Laboratory activities consist of staining and culturing techniques as are used in identification of various organisms and analysis of water, food, and dairy products. The microscope will be used for observation of microbes.

CCBC CRIMINAL JUSTICE ACADEMY

Ambridge Area High School is proud to be associated with the CCBC Criminal Justice Academy. We offer dual enrollment for students interested in criminal justice careers who also meet the program requirements, as specified by CCBC. Students in grades 11-12 are eligible for this program. As a CCBC criminal justice student, you'll have the opportunity to earn up to 28 college credits while still taking your high school classes. Additionally, monetary fees are determined by CCBC. Additional information of this program can be found in the Guidance Office or by contacting the Criminal Justice Academy at Mark Joyce 724-480-3628 or via e-mail CJChampion@ccbc.edu. Students enrolled in the CCBC College in High School Program will earn (1.00) Math, (1.00) Science, and (3.00) elective credits towards graduation at Ambridge Area High School.

JUNIOR YEAR

Fall Semester

CRIM 100

INTRODUCTION TO CRIMINAL JUSTICE

This course is an overview of the American criminal justice system dealing with the role of the police, courts, and correctional institutions. The course also covers constitutional limits of police power, the trial process and sentencing structure, and the functions of the numerous agencies within the criminal justice system.

WRIT 101

ENGLISH COMPOSITION

Students will practice expository writing and learn the academic form of the essay and research paper. Students will focus on the development of an academically sound and challenging thesis and resulting essay. The mechanics of writing will be reviewed as needed. Pre-requisite: Placement testing; successful completion of DEVS012 Reading and DEVS015 Introduction to College Writing if required, permission of the Division Director. Honors Option Available English Composition Honor students will practice expository and persuasive discourse in writing and learning the academic form of the essay and research paper. Students will focus on the development of a sound thesis for projects concerning topics of global or international significance.

COLL 100

TITAN TRANSITION

This course emphasizes the growth of the individual both academically and personally. Students become part of the learning community at CCBC through an orientation to campus technology and services and by acquiring knowledge of the culture of higher education.

Spring Semester

CRIM 210

JUVENILE JUSTICE

The course topics include biological, psychological and sociological factors in juvenile delinquency; a survey of theories of juvenile delinquency; and modern trends in prevention and treatment.

CRIM 201

INTERVIEW INTERROGATION PART 1

This course will review fundamentals of the interviewing process including interviewing aides, recognition and use of psychological factors in perception and identification of deception, and physical influence factors of perception and identification of deception.

PSYC101

GENERAL PSYCHOLOGY

This course examines the scientific study of behavior and mental processes and provides a survey of the major areas of psychology. Important topics and findings from psychology are reviewed. Topics include the role of science in the study of behavior, the biological

foundations of behavior, learning, information processing, stress and health, social interaction, development, motivation, emotion and psychological disorders.

SENIOR YEAR

Fall Semester

CRIM 124

POLICING/LAW ENFORCEMENT

An introduction to the police system in America, the gateway to the criminal justice process. Topics covered will include the historical foundations of police, both in America and abroad, the various roles and tasks of law enforcement and the process by which police officers are hired. The police subculture, the stresses of modern day police work along with innovative changes taking place in law enforcement will be explored.

CRIM 202

INTERVIEW INTERROGATION PART 2

This course will introduce the fundamentals of the eight steps of the interviewing process as well as the legal constraints in witness victim identification in the use of line-ups, show-ups and photographic displays.

COMM 201

PUBLIC SPEAKING

The emphasis is on speech preparation and delivery in a variety of speaking experiences designed to improve the speaker's capability through the application of correct speech practices. Honors Option Available Public Speaking Honors emphasizes speech preparation, and delivery, with special attention paid to crafting effective academic and professional presentations on global and international issues. Speaking experiences and presentations will be designed by individuals and groups and presented to the CCBC community, the public and other appropriate audiences.

Spring Semester

CRIM 125

CORRECTIONS

Organization, objectives, and functions of a correctional agency will be studied. Principles of Administration relating to the sound and efficient operation of correctional facilities will be discussed with emphasis on the special problems encountered in the field.

CRIM 203

INTERVIEW INTERROGATION PART 3

Techniques of the interrogation process will be covered with particular emphasis on role-playing. Major Supreme Court decisions on interrogation law will also be discussed.

LITR 210

CONCEPTS OF LITERATURE

This course introduces students to the three major forms of literary expression: fiction, poetry, and drama. Significant works from each form will be analyzed to reveal creative techniques, how they represent an author's time, and how they reflect today's human condition. Honors Option Available Concepts of Literature Honors explores literary art forms, both traditional, fiction, poetry and drama and non-traditional, film, virtual reality and gaming as well as the international cultures and philosophical approaches that create and interpret such works. Significant contributions to each literary form will be analyzed, resulting in student produced compositions, multi-media presentations and student lead discussions.

Prerequisite: WRIT101 or permission of the department.

CCBC STEM ACADEMY

Ambridge Area High School is proud to be associated with the CCBC STEM ACADEMY. We offer dual enrollment for students interested in STEM ACADEMY careers who also meet the program requirements, as specified by CCBC. Students in grades 11-12 are eligible for this program. Students will gain hands-on experience in the CCBC's classrooms and labs. As a CCBC STEM Academy student you will have the opportunity to earn up to 28 college credits while completing your high school degree VIA STEM Academy Engineering or STEM Academy Process Technology. Additionally, monetary fees are determined by CCBC. Additional information of this program can be found in the Guidance Office or by contacting the STEM Academy director Jodi Carver at 724-480-3628 or via e-mail STEMChampion@ccbc.edu Students enrolled in the CCBC College in High School Program will earn (1.00) Math, (1.00) Science, and (3.00) elective credits towards graduation at Ambridge Area High School.

STEM ACADEMY – ENGINEERING

JUNIOR YEAR

Fall Semester

ENGR 100

INTRODUCTION TO ENGINEERING

Introduction to Engineering develops a foundation of engineering principles to apply the problem-solving skills necessary to become an analytical, detail-oriented and creative engineer. This course begins with a survey of engineering career topics. Students then move on to study basic scientific concepts and laws that engineers encounter on the job. Additionally, the course explores how engineers apply physical and chemical laws/principles in combination with mathematics to design, test and supervise the production of parts, products and services that people use every day. Engineering principles of analysis, experimentation and design are applied to a real problem from initial concept to final specifications. The project results are evaluated in terms of technical and economic feasibility and social significance.

WRIT 101

ENGLISH COMPOSITION

Students will practice expository writing and learn the academic form of the essay and research paper. Students will focus on the development of an academically sound and challenging thesis and resulting essay. The mechanics of writing will be reviewed as needed. Pre-requisite: Placement testing; successful completion of DEVS012 Reading and DEVS015 Introduction to College Writing if required, permission of the Division Director. Honors Option Available English Composition Honor students will practice expository and persuasive discourse in writing and learning the academic form of the essay and research paper. Students will focus on the development of a sound thesis for projects concerning topics of global or international significance.

COLL 100

TITAN TRANSITION

This course emphasizes the growth of the individual both academically and personally. Students become part of the learning community at CCBC through an orientation to campus technology and services and by acquiring knowledge of the culture of higher education.

Spring Semester

CHEM 101

GENERAL CHEMISTRY I

This course involves an understanding of the principles of measurement, chemical equations, stoichiometry, atomic structure, chemical bonding, periodic relationships, and the chemistry of the common elements. Prerequisites: Appropriate placement score or 1 year high school chemistry with the appropriate letter grade or Corequisite: MATH129 or MATH130.

ENGR 130
ROBOTICS

This course is designed around the fundamental understanding of the mechanical, logical and programming systems that make up robots and the development of workplace competencies. The cornerstone of the class involves solving engineering design problems. Students assume the role of project manager/problem solver as they build, program and debug agile robots in remote control and autonomous modes. Arduino microprocessors are used to develop independent embedded system devices.

SENIOR YEAR

Fall Semester

MATH 160
CALCULUS I

This course provides an introduction to the ideas and applications of calculus. The major topics studied are limits and continuity; differentiation; applications of differentiation; and integration. Prerequisite: "C" or better in MATH140 or MATH155, appropriate placement score, appropriate high school records or permission of the faculty.

ENGR 120
CAD: COMPUTER AIDED DRAFTING

The Computer Aided Design (CAD) course provides a solid foundation that focuses on basic computer aided drafting skills using the latest release of AUTOCAD. Students begin their study with 2-dimensional drawing concepts, continue working with complex entities and finally work on 3-dimensional modeling techniques. Students survey industries that commonly use AUTOCAD along with industry-standard, concepts and techniques.

Spring Semester

MATH 161
CALCULUS II

This course is a continuation of MATH160 and completes the introduction to one-variable calculus. Major topics covered are applications of integrals; inverse functions; techniques of integration; and infinite series. Prerequisite: "C" or better in MATH160.

PSYCH 101
GENERAL PSYCHOLOGY

This course examines the scientific study of behavior and mental processes and provides a survey of the major areas of psychology. Important topics and findings from psychology are reviewed. Topics include the role of science in the study of behavior, the biological foundations of behavior, learning, information processing, stress and health, social interaction, development, motivation, emotion and psychological disorders.

STEM ACADEMY – PROCESS TECHNOLOGY

JUNIOR YEAR

Fall Semester

PTEC 100
INTRODUCTION TO PROCESS TECHNOLOGY

This course is an overview of the equipment and operations in a variety of process industries. It introduces students to equipment, instrumentation, safety, quality, applications of chemistry and physics, and the roles of a process technician.

WRIT 101
ENGLISH COMPOSITION

Students will practice expository writing and learn the academic form of the essay and research paper. Students will focus on the development of an academically sound and challenging thesis and resulting essay. The mechanics of writing will be reviewed as needed. Pre-requisite: Placement testing; successful completion of DEVS012 Reading and DEVS015 Introduction to College Writing

if required, permission of the Division Director. Honors Option Available English Composition Honor students will practice expository and persuasive discourse in writing and learning the academic form of the essay and research paper. Students will focus on the development of a sound thesis for projects concerning topics of global or international significance.

COLL 100

TITAN TRANSITION

This course emphasizes the growth of the individual both academically and personally. Students become part of the learning community at CCBC through an orientation to campus technology and services and by acquiring knowledge of the culture of higher education.

Spring Semester

PTEC 104

PROCESS TECHNOLOGY EQUIPMENT

This course is an introduction to the typical equipment used in the chemical process industry. It introduces terminology, an overview of the structural components and functions, and operation of equipment and vessels in the process industry. This course also introduces the process technician to his or her role in safe operation and maintenance of equipment.

PSYCH 101

GENERAL PSYCHOLOGY

This course examines the scientific study of behavior and mental processes and provides a survey of the major areas of psychology. Important topics and findings from psychology are reviewed. Topics include the role of science in the study of behavior, the biological foundations of behavior, learning, information processing, stress and health, social interaction, development, motivation, emotion and psychological disorders.

SENIOR YEAR

Fall Semester

PTEC 106

INSTRUMENTATION I

This course is an introduction to the main instruments of measurement and control used in the process industry. The course describes typical process variables and the instruments used to sense, measure, transmit and control these variables. This course also discusses the concept of control loops and the fundamentals of control loops such as controllers, regulators and final control elements. This course also provides the student with an introduction to instrumentation diagrams and basics of troubleshooting instrumentation.

COMM 201

PUBLIC SPEAKING

The emphasis is on speech preparation and delivery in a variety of speaking experiences designed to improve the speaker's capability through the application of correct speech practices. Honors Option Available Public Speaking Honors emphasizes speech preparation, and delivery, with special attention paid to crafting effective academic and professional presentations on global and international issues. Speaking experiences and presentations will be designed by individuals and groups and presented to the CCBC community, the public and other appropriate audiences.

Spring Semester

PTEC 206

INSTRUMENTATION II

This course builds upon the concepts of measurement and controls covered in Instrumentation I and gives the student an introduction to switches, relays, annunciator systems and elements of signal conversion and transmission. The course also provides an overview of controllers and control schemes such as digital control, programmable logic control and distributed control systems. The concepts covered in this course provide the student with the basics of troubleshooting process control systems. 3-2-4 Prerequisites: PTEC100 and PTEC106

WRIT 103

WRITING FOR BUSINESS/INDUSTRY

Designed to train the student in effective writing, this course aims to increase the student's ability to write with unity, coherence, and logic. It provides additional study and practice in writing letters, proposals, manuals, and reports of a business or technical nature as well as in professional and contemporary research methods. Prerequisite: WRIT101

CCAC APPRENTICESHIP PROGRAM

German American Chamber of Commerce Pre-Apprenticeship

Weeks: 36

Grades: 11, 12*

Credit: 1.0

Pre-Apprenticeship services and programs are designed to prepare students to enter and succeed in registered Apprenticeship programs. In other words: they are **paid, college-credited internships** that give High School students in their senior year the opportunity to explore and learn about exciting career paths. The execution of the Pre-Apprenticeship is twofold as per below.

***Pre-requisite:** Student Must Speak with Member of the School Counseling office and transition coordinator. Student will receive the apprenticeship program by teacher recommendation only.

1. Dual Enrollment (College in the classroom) and certification

Through dual enrollment agreements, students will be trained skills that are relevant for the manufacturing industry as well as prepare them to pass the MT1 certification (Manufacturing Technician Level 1 from the MSI Institute). The certification is on the one hand **recognized in the industry nationwide** and on the other hand bound with **6 college credits from CCAC** that can later on be transferred (e.g. into the Apprenticeship Program).

2. Paid internship at a company

When senior students decide to participate in our Pre-Apprenticeship program they get paired with a company, where they will be **job shadowing at state-of-the-art facilities** and get familiar with careers in technical or manufacturing fields. The paid internship will be integrated into the student's school schedule and will make the preparations for the MT1 certification more relevant and hands-on.

BUSINESS / COMPUTERS / MARKETING

Through the careful selection of courses, the Business Program can be combined with the Academic Program and still allow the student to meet college entrance requirements. This combination is highly recommended for students who may be interested in going into business management, accounting, marketing, business education and any other related fields.

Since Business Administration is the second chosen field of study by college students, the Business Department offers an innovative, flexible, personalized and comprehensive plan to achieve any academic, general, or vocational curriculum.

0200

FRESHMAN SEMINAR FOR ACADEMICS, CAREER, AND FINANCE I

Weeks: 18

Grades: 9, 10

Credit: 0.5

Outstanding course for preparation in Academics, Career, and Personal Finance. Students will create an Academic Plan for their next four years of High School that will better prepare them for College or Trade School. The class will help discover what possibilities exist as careers and the education needed to help the students achieve a career that would best fit their interests and strengths. The Guidance Office and Classroom instructor will team teach in areas that will improve College and Career Readiness in areas of Mindset Standards and Behavior Standards, including Learning Strategies, Self-Management Skills, and social skills. The student will also be introduced to Personal Finance and the relationship between having a career and building a strong financial structure for future success.

Prerequisite: None

0201

BUSINESS AND PERSONAL FINANCE II

Weeks: 18

Grades: 9, 10, 11, and 12

Credit: 0.5

Business and Personal Finance II course is designed to encourage the personal application of financial planning concepts and will include assignments that foster critical thinking skills and analyses of financial data. Students will be able to directly apply what they have learned to their lives in order to become successful financially. This course will educate the importance of financial security through diversified investments while understanding credit management to make sound life decisions.

Prerequisite: Business and Personal Finance I

0210

SPORTS AND ENTERTAINMENT MANAGEMENT

Weeks: 18

Grades: 9, 10, 11, and 12

Credit: 0.5

Play Ball! Let the show begin! If you would like to investigate the possibility of a career in the Sports and Entertainment field, then this is the class for you! Sports and Entertainment Management will offer the opportunity to learn the basis of the Sports and Entertainment Industry. The course will concentrate on Business, Management, Communication and Interpersonal Skills, Economics, Professional Development, Sport Strategies, Recruiting Athletes and Entertainers, Risk Management and Managing Information.

Prerequisite: None

0215

BUSINESS LAW (Criminal and Civil)

Weeks: 36

Grades: 10, 11, and 12

Credit: 1

This course will give students an understanding of the law as it pertains to them and the world. Course content includes: Law and its legal procedure, rights and responsibilities as a citizen, consumer and worker, contracts, starting a business and planning for the future.

Prerequisite: None

0225
ACCOUNTING I
Weeks: 36
Grades: 10, 11, and 12
Credit: 1

This course introduces the accounting principles and bookkeeping procedures to maintain a company's records. (Accounting cycle, Accounting systems, and internal control) Students should be able to demonstrate an understanding of accounting principles, procedures and display a basic understanding of financial statements.
Prerequisite: None

0230
ACCOUNTING II
Weeks: 36
Grades: 10, 11, and 12
Credit: 1

Students will learn principals of accounting theory and practice currently used in accounting information systems. Topics covered include accounting for service and merchandising business enterprises. The process of analyzing, journalizing, and posting are covered in-depth, as well as adjusting accounts, preparing financial statements, and completing the accounting cycle. Deferrals, accruals, accounting for merchandise inventory, ethics and internal controls, cash and receivables are also covered.
Prerequisite: Teacher Recommendation

0235
COMPUTER APPLICATIONS
Weeks: 18
Grade: 9
Credit: 0.5

This "hands-on" course will give students knowledge of the basic services of the application and system software used to process information. Students will improve their keyboarding techniques, will be introduced to the Windows operating system, word processing (MS Word), spreadsheets (MS Excel), database (MS Access) and presentation software (MS PowerPoint). The students will also gain hands-on experience and develop skills to use the Internet.
Prerequisite: None

0245
INTERNET / WEB DESIGN
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

The Internet has put the information of the world at your fingertips. This course will give students what they need to enter "Cyberspace," otherwise known as the Net and the World Wide Web. Students will develop the knowledge, understanding and skills needed to use the Internet as a research tool. Students will also learn the basics of Hyper-text Mark-Up Language (HTML). They will create their own homepage with graphics, text, and hyperlinks using HTML and Dreamweaver.
Prerequisite: None

MARKETING AND COOPERATIVE EDUCATION

Over one-third of the jobs in the country deal with some aspect of marketing. Consider the possibilities!

The Marketing and Cooperative Education Program is an excellent way to start if a student is interested in pursuing management, accounting, retailing, selling, finance, marketing, international business, advertising, entrepreneurship or public relations. The Ambridge Marketing and Business Programs are involved with a secondary and post-secondary National Organization, DECA (An association of marketing and business students) which gives students an advantage in hiring, developing leadership skills, competition, community service, etiquette, SCHOLARSHIPS, and much more. Students are encouraged to participate in DECA.

The Marketing and Cooperative Education Program is a great opportunity for those who continue their education after high school graduation as well as for those who go directly into the work force.

The Marketing and Cooperative Program also gives the students the opportunity to apply their classroom experiences and knowledge to hands-on real-life situations through a cooperative work experience.

0270
MARKETING I
Weeks: 36
Grades: 10, 11, and 12
Credit: 1

The marketing program includes topics relating to the world of marketing or management such as: marketing concepts, economic essentials, business and social responsibilities, business plans, marketplace, fundamentals of mathematics, communication skills, computer technology, interpersonal and management skills, selling and advertising. Students must maintain a 70% in Marketing I to take Marketing II. Recommended to be taken as a sophomore or junior.
Prerequisite: None

0275
MARKETING II
Weeks: 36
Grades: 11, and 12
Credit: 1

This course is designed to develop advanced marketing competencies. Class includes: promotion, distribution, pricing, marketing information management, product service management, target markets, buying costs, demand, entrepreneurship, finance, employability skills, and career development. Students must maintain a 70% in Marketing II to be released from school for on-the-job training. Only seniors are dismissed from school for OJT.
Prerequisite: Marketing I

0280
ON THE JOB TRAINING (OJT)
Weeks: 36
Grades: 12
Credit: 1
Released for four (4) periods—6, 7, 8, 9

0285
ON THE JOB TRAINING (OJT)
Weeks: 36
Grades: 12
Credit: 1
Released for three (3) periods—7, 8, 9

0290
ON THE JOB TRAINING (OJT)
Weeks: 36
Grades: 12
Credit: 1
Released for two (2) periods—8, 9

0295
ON THE JOB TRAINING (OJT)
Weeks: 36
Grades: 12
Credit: 1
Released for one (1) period—9

ENGLISH

Each student will select courses beginning in ninth grade to fulfill his or her communication requirements for graduation. In order to complete all English requirements, a student must complete one Communications / English course from the particular course sequence each year.

0345
ADVANCED PLACEMENT LITERATURE AND COMPOSITION
Weeks: 36
Grade: 11, 12
Credit: 1

AP® courses in English consist of a full high school academic year of work and are comparable to courses in colleges and universities. This course is for students with superior reading and writing skills as well as an interest in a challenging, fast-paced environment. This course engages students in careful and critical analysis of literature, which benefits students by cultivating one's understanding of self, others and society overall. The course includes an intensive study of various literary genres and periods, concentrating on works of recognized literary merit. Students will read deliberately and thoroughly, take time to understand a work's complexity, analytically critique texts, and engage in presentations. Writing is an integral part of the AP® English Literature and Composition course. A summer assignment is required. It is expected that students, who take the course, seek college credit. The AP® Literature and Composition Exam is offered in early May.

*In 2021-2022 this class will only be offered to 12th grade students

Prerequisite: An 80% in AP® Language or 90% in College Prep 11. Mandatory current English teacher recommendation. Completion of summer assignment.

0340
COLLEGE PREPARATORY ENGLISH 12: THROUGH COOPERATION WITH CCBC
Weeks: 36
Grades: 12
Credit: 1

College Preparatory English 12 with College is offered for three college credits for a nominal fee. Students will take WRIT 101. This is the same class CCBC students take on campus. The class focuses on English Composition. Students will practice expository writing and learn the academic form of the essay and research paper. Students will focus on the development of an academically sound and challenging thesis and resulting essay. The mechanics of writing will be reviewed as needed. This course is one semester long. The second semester students will follow the College Preparatory English curriculum. Submission of summer reading and writing requirement upon the first day of school.

Prerequisite: 80% in College Prep 11, 80% in AP® Language, or current English teacher recommendation

0335
PRACTICAL ENGLISH 12
Weeks: 36
Grade: 12
Credit: 1

Communications IV is designed for all twelfth grade students not enrolled in College Prep 12 or AP® Lit. It is a practical and functional senior course, which focuses on five major components: writing, research, literature, grammar, and oral communications. Specific units will be covered in all literary genres; novel, short story, and drama. Students refine their language skills by engaging in individual and group activities. Students read literature ranging from traditional and contemporary classics to newspaper and magazine articles. Students will continue to enhance their core communication skills. A research project is required. Additional emphasis will be placed on creative projects and presentations.

Prerequisite: None

0350
ADVANCED PLACEMENT® ENGLISH LANGUAGE AND COMPOSITION

Weeks: 36
Grades: 11, 12
Credit: 1

AP® courses in English consist of a full high school academic year and are comparable to courses in colleges and universities. This college level course is for students with superior reading and writing skills as well as an interest in a challenging, fast-paced environment. This course cultivates the reading and writing skills that students need for college success and intellectually responsible civic engagement. This course guides students in becoming curious, critical, and responsive readers of diverse texts, and becoming flexible, reflective writers of texts addressed to differing audiences for varying purposes. The course cultivates the rhetorical understanding and use of written language by directing students' attention to writer/reader interactions through formal and informal genres. To support these goals, rhetoric and composition courses emphasize the reading and writing of analytic argumentative texts instead of, or in combination with, texts representing English-language literacy traditions. Additionally, students will have the option to take this course in conjunction with the University of Pittsburgh's CHS Argument course. A minimum grade requirement of a "C" and a fee will apply to receive college credit. Students also have the choice to take this course for Advanced Placement® credit. Those not enrolling in the Pitt CHS credit will be expected to take the Advanced Placement® exam. Writing is an integral part of the AP® English Language and Composition course. A summer assignment is required. It is expected that students, who took the course, seek college credit. The AP® Literature and Composition Exam is offered in early May.

Prerequisite: 80% in Advanced English 10 or 90% in College Prep 10. Mandatory current English teacher recommendation. Completion of summer assignment.

*In 2021-2022 this class will only be offered to 11th grade students

0320
COLLEGE PREPARATORY ENGLISH 11

Weeks: 36
Grades: 11
Credit: 1

College Preparatory English 11 is designed for college bound students interested in enhancing their abilities in literary analysis. Emphasis will be placed on grammar, research composition, public speaking, and an analytical approach to literature. This course is a survey of American Literature, requiring students to read, interpret, and analyze poetry, essays, short stories, drama, and novels from colonial to contemporary literature. MLA style is reinforced through all research and writing assignments. A College and Career Research project is required. This course has a mandatory summer assignment.

Prerequisite: 80% in College Prep 10, 90% in Practical English 10, or current English Teacher recommendation.

0325
PRACTICAL ENGLISH 11

Weeks: 36
Grades: 11
Credit: 1

Communications 11 is designed for students who are not planning on attending college after high school. The emphasis in the class is to improve to improve reading, writing, speaking, and critical thinking skills by studying literature, grammar, and composition. Students read high-interest short stories and novels, which serve as models for a wide variety of writing assignments. Students will use a standard process to compose professional correspondence and a variety of writings. A research project is a requirement for this class.

Prerequisite: None

0330
ADVANCED ENGLISH 10

Weeks: 36
Grades: 10
Credit: 1

Advanced English 10 is designed to prepare top students for success in AP® courses, on the SAT and ACT tests, and in all other high level English courses. In this course, students undertake a comparative analysis of literature representing a variety of cultures, philosophies, and regional pieces. Throughout the course, students continue to develop their writing craft through rigorous practice in various modes supported by a series of writers' workshops. This course also includes emphasis on public speaking, grammar, research writing, and poetry. Advanced English 10 is designed for students interested in a challenging and accelerated study of literature and writing who intend to advance to AP Language and AP Lit

Prerequisite: 90% in College Prep 9 or Practical English 9 or 80% in Advanced English 9. Mandatory current English Teacher recommendation. Completion of summer assignment.

0310
COLLEGE PREPARATORY ENGLISH 10
Weeks: 36
Grades: 10

College Preparatory English 10 is designed for college bound sophomores. Emphasis will be placed on grammar, composition, public speaking, and literature. Improving higher order thinking through emphasis of classic and contemporary World literature, as well as selected novels, will be the focus for improving writing skills. A research paper is also required. Submission of summer reading and writing requirement upon the first day of school.

Prerequisite: 80% in College Prep 9, 90% in Practical English 9, or current English teacher recommendation

0315
PRACTICAL ENGLISH 10
Weeks: 36
Grade: 10
Credit: 1

Communications II is designed for students who are not planning on attending college after high school. The emphasis in the class will stress literature, writing, test-taking preparation, and oral communications. A research paper is a requirement for this class. Literature will include selections from the World Literature Anthology. Specific units will be covered in all genres: novels, short stories and drama.

Prerequisite: None

0355
ADVANCED ENGLISH 9
Weeks: 36
Grade: 9
Credit: 1

In this advanced course, students read, analyze, and compose essays about challenging works of literature and apply rules of grammar and mechanics to their writing. In addition, students focus on supplementary vocabulary which they integrate into their speaking, reading, and writing. Throughout the year, the students practice public speaking and group interaction skills.

Prerequisite: 90% in Advanced English 8 or English 8. Mandatory current English teacher recommendation. Completion of a summer assignment.

0300
COLLEGE PREPARATORY ENGLISH 9
Weeks: 36
Grade: 9
Credit: 1

College Preparatory English 9 is designed for freshman who intend to go to college after high school. Emphasis will be placed on grammar, composition, public speaking, and literature. Improving higher order thinking through emphasis of classic and contemporary literature, as well as selected novels, will be the focus for improving writing skills. Submission of summer reading and writing requirement upon the first day of school

Prerequisite: 80% in Advanced English 8, English 8, or current English teacher recommendation.

0305
PRACTICAL ENGLISH 9
Weeks: 36
Grade: 9
Credit: 1

Practical English 9 is designed for students who are not planning on attending college after high school. The emphasis in the class will stress literature, writing, test-taking preparation, and oral communications. Literature will include a wide selection from the varied sources. Specific units will be covered in all genres; novels, short stories and drama.

Prerequisite: None

0675
SAT PREPARATION/VERBAL
Weeks: 18
Grade: 10, 11, and 12
Credit: 0.5

This nine-week section of a one-semester course is designed to help prepare students planning on taking the SAT test. The verbal section stresses problem solving techniques in analogies, antonyms, sentence completion, and reading comprehension. It is accompanied with a nine-week section on math preparation. Students planning on taking the SAT test should take this course. A nominal fee of \$25 will be applied towards the purchase of individual classroom materials. These materials will be the students to keep at the conclusion of the class.

***The class will also introduce students to the ACT as well and examine the difference between the two tests.
Prerequisite: None

0375
ACTING / PUBLIC SPEAKING
Weeks: 18
Grade: 9, 10, 11, 12
Credit: .5

Acting/Public Speaking is a performance-based class designed to teach basic acting and public speaking skills. The class is held half of the time in the classroom and half of the time on the auditorium stage. Students will study the proper organization and manner to orally present materials. Throughout the course, students will gain the confidence and ability to present to audiences. Students will perform regularly both individually and in groups.

Prerequisite: None

0380
CREATIVE WRITING
Weeks: 18
Grade: 9, 10, 11, 12
Credit: .5

Creative Writing will explore self-expression by exposing students to a variety of poetic and prose structures and techniques. With the assistance of their peers in a writer workshop, students will compile a collection of original poetry and short stories that they share in class. Students should expect to read and write daily during the semester. Students will expand and refine vocabulary. Students will prepare a text for submission for publication or contest.

Prerequisite: Must have completed 9th grade English

NEWSPAPER

1430
NEWSPAPER I
Weeks: 36
Grades: 9, 10, 11, 12
Credit: 1

Students will gain practical experience in all phases of publishing the school newspaper *The Silhouette*. Activities include news, editorial, feature and sports writing for the monthly publications. Other activities include copy editing, graphic layout and design (desktop publishing), digital photography & editing, advertising and distribution.

Prerequisite: Teacher Recommendation/JH Paper/English/ ALL STUDENTS ARE REQUIRED TO BE APPROVED BY THE SPONSOR.

1435
NEWSPAPER II
Weeks: 36
Grades: 10, 11, 12
Credit: 1

Students will gain practical experience in all phases of publishing the school newspaper *The Silhouette*. Activities include news, editorial, feature and sports writing. Other activities include copy editing, graphic layout and design (desktop publishing), digital photography & editing, advertising and distribution.

ALL STUDENTS ARE REQUIRED TO BE APPROVED BY THE SPONSOR.

Prerequisite: Newspaper I

1440

NEWSPAPER III

Weeks: 36

Grades: 11, 12

Credit: 1

Students will gain practical experience in all phases of publishing the school newspaper *The Silhouette*. Activities include news, editorial, feature and sports writing. Other activities include copy editing, graphic layout and design (desktop publishing), digital photography & editing, advertising and distribution. Experienced students have the opportunity to be awarded leadership positions as editors in all main writing and layout areas.

Prerequisite: Newspaper II / ALL STUDENTS ARE REQUIRED TO BE APPROVED BY THE SPONSOR

1445

NEWSPAPER IV

Weeks: 36

Grades: 12

Credit: 1

Students will gain practical experience in all phases of publishing the school newspaper *The Silhouette*. Activities include news, editorial, feature and sports writing. Other activities include copy editing, graphic layout and design (desktop publishing), digital photography & editing, advertising and distribution. Experienced students have the opportunity to be awarded leadership positions as editors in all main writing and layout areas.

Prerequisite: Newspaper III / ALL STUDENTS ARE REQUIRED TO BE APPROVED BY THE SPONSOR.

FOREIGN LANGUAGE

Choose a foreign language based on interests, academic and career goals. College bound students in an academic or business course of study in high school should take 2-4 levels of Spanish or Italian. Foreign language classes increase students' language skills and overall academic performance. In addition, many colleges require 2-3 years of a foreign language study in high school for various college majors. With this in mind, Ambridge Area High School offers 5 levels of Spanish and 4 levels of Italian.

0500
SPANISH I
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

Rigorous course requirements include frequent homework assignments, participation in class discussions, presentations, and various assessments. Spanish I introduces the principles of grammar and aims to build an active vocabulary. The culture and customs of Spain and Mexico, and South America are given special attention via videos, readings, and discussion. Spanish influences in the U.S. are also discussed.

Prerequisite: 80% in English

0502
SPANISH II
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

Rigorous course requirements include frequent homework assignments, participation in class discussions, presentations, and various assessments. Spanish II aims to increase the basic knowledge of the language. Emphasis is placed on more conversations, reading and writing skills. Basic grammar and vocabulary work are also increased. Cultural appreciation is enhanced by discussions dealing with culture and customs of Spanish-speaking countries.

Prerequisite: 80% in Spanish I

0504
SPANISH III
Weeks: 36
Grades: 10, 11, and 12
Credit: 1

Rigorous course requirements include presentations, homework assignments, class discussions, and various assessments. Advanced grammar and composition in Spanish are emphasized. Skits and speeches in Spanish during the course increase proficiency. Spanish literature is also introduced via the short story. Active conversation is emphasized.

Prerequisite: 80% Spanish II

0506
SPANISH IV
Weeks: 36
Grades: 11, and 12
Credit: 1

Rigorous course requirements include presentations, homework assignments, class discussions, and various assessments. Emphasis is placed on strengthening grammar and conversation skills. In addition, students read short stories, mini novels, develop skits, dialogs, newspapers, children's books and research Spanish countries.

Prerequisite: 80% in Spanish III

0508
AP SPANISH V
Weeks: 36
Grades: 11, and 12
Credit: 1

Rigorous course requirements include presentations, homework assignments, class discussions, and various assessments. Students will use a variety of materials to further their knowledge in Spanish. Sources include magazines, newspapers, supplemental texts, and videos in Spanish. Emphasis on speaking through skits and listening to tapes is an essential part of this course.

Prerequisites: 80% in Spanish IV

0524
ITALIAN I
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

Rigorous course requirements include frequent homework assignments, participation in class discussions, presentations, and various assessments. Italian I presents the fundamentals of Italian grammar, pronunciation, conversation, and writing. Emphasis is on oral work and vocabulary building. Attention is given to the culture of the country through music, filmstrips, and readings.

Prerequisites: 80% in English

0526
ITALIAN II
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

Rigorous course requirements include frequent homework assignments, participation in class discussions, presentations, and various assessments. Italian II aims to increase speaking, reading, and writing abilities, and gives the student a rapid survey of Italian history and some knowledge of the Italian contributions to the world. Emphasis is placed on comprehension of short stories and paragraphs, revision of grammar, more culture through slides, videos, and the use of computers.

Prerequisites: 80% in Italian I

0528
ITALIAN III
Weeks: 36
Grades: 10, 11, and 12
Credit: 1

Rigorous course requirements include presentations, homework assignments, class discussions, and various assessments. The emphasis in this course is on speaking and grammar so students may work independently reading about topics of their choice in Italian. Students will be working and learning through a variety of sources and media.

Prerequisites: 80% in Italian II

0530
ITALIAN IV
Weeks: 36
Grades: 11, and 12
Credit: 1

Rigorous course requirements include presentations, homework assignments, class discussions, and various assessments. Students will use a variety of materials to further their knowledge in Italian. Sources include magazines, newspapers, supplemental texts, and videos in Italian. Emphasis on speaking through skits and listening to tapes is an essential part of this course.

Prerequisites: 80% in Italian III

HEALTH / PHYSICAL EDUCATION

The Health & Physical Education curriculum is composed of eleven courses developed to aid each student acquire and utilize the knowledge and skills necessary to promote a positive individual and family lifestyle of health wellness. This will be achieved by the student being able to demonstrate appropriate responses in the areas of: emergency situations; healthy dietary habits, nutrition; physical fitness and its direct relationship to good personal habits, disease prevention; substance abuse prevention; and the development of physical fitness through lifelong physical activities which promote a healthy lifestyle. This will be accomplished through leadership skills and cooperative learning in-group activities.

1500
H & PE I
Weeks: 18
Grades: 9, and 10
Credit: 0.5

The students will be able to demonstrate knowledge in the 3 key elements of health (Physical, Mental/Emotional, Social). Students will be able to utilize various lifetime skills to make healthy choices (communication, refusal skills, stress management, self-esteem, goal setting etc...). Students will be able to identify the components and benefits associated with physical fitness and proper nutrition. Students will learn to prevent, identify and treat various injuries. In Physical Education, students will perform weight training to learn how to properly spot, perform exercises and also learn what muscles are being worked. The overall physical education program is unique with students being exposed to fitness, team sports and lifetime/leisure activities.

Prerequisites: None (**This course is required for graduation**)

1505
H & PE II
Weeks: 18
Grades: 9, 10, and 11
Credit: 0.5

The Health and Physical Education curriculum is designed to facilitate the development of the “whole” student. Health behaviors and lifetime activities will be offered. Topics such as Tobacco Abuse Prevention, Nutrition, Managing stress, Prevention of communicable diseases and Sexually Transmitted Diseases and Teen Dating Violence will be explored. The Physical Education curriculum allows the student to choose a variety of physical activities that meet their individual preferences and activity needs. Prerequisites: H & PE I (**This course is required for graduation**)

1510
H & PE III
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

Students will learn behaviors important in maintaining a healthy adult lifestyle, as well as behaviors necessary in meeting the individual’s social, physical, and emotional needs. Students will discuss topics such as Individual Growth and Development, Family Development, and Alcohol Abuse Prevention. The Physical Education curriculum allows the student to choose from a variety of physical activities that meet his/her personal interests and individual needs for fitness.

Prerequisites: H & PE I & II (**This course is required for graduation**)

ELECTIVE COURSES (Health/Physical Education)

In order to complete all Health and Physical Requirements, all students must take 1 PE Elective within 4 years. These courses must be taken as an elective in addition to the required PE/HEALTH credits.

1515
RACQUET SPORTS/LEISURE ACTIVITIES
Weeks: 18 (5 days a week)
Grades: 11, and 12
Credit: 0.5

This course focuses on three racquet sports: Pickleball, Table Tennis, and Badminton. Instruction will be prioritized so that students are proficient in each sport. Both Recreational games and competitions (tournament style) will be provided during each instructional unit. The course will also offer various recreational activities that will help promote lifetime fitness.

1522
FITNESS WALKING ELECTIVE
Weeks: 18 (5 days a week)
Grades: 10, 11, 12
Credits: 0.5

This course will introduce a lifelong fitness activity young people can participate in independently throughout their lives. The purpose of this course is to increase heart rate and emphasize fitness rather than sport. This course is a great way to maintain target heart rate, reduce impact on joints, reduce stress, increase cardiorespiratory stamina and prevent injuries.

1520
WEIGHT TRAINING
Weeks: 18
Grades: 10, 11, and 12
Credits: 0.5

Students in Weight Training will be offered a beginner and advanced training program. The class will begin with the instructor teaching and planning the exercise program. Students will then have the opportunity to design and implement their own program to accomplish their personal fitness goals. This course is designed for the beginner and advanced lifter since there is a basic and advanced training program for the students to execute.

Prerequisite: Physical Education 1

1521
WEIGHT TRAINING FOR THE FEMALE ATHLETE
Weeks: 18 (5 days a week)
Grades: 10, 11, and 12
Credits: 0.5

Students who participate in this course will have a program that is specifically designed to meet the needs of the female athlete. The class will begin with the instructor teaching and planning a female specific exercise program. The course is excellent for beginner and intermediate students.

Prerequisite: Physical Education 1

1525
TEAM SPORTS
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

The course focuses on 4 team sports: Softball, Hockey, Football, and Basketball and other various games. Each sport will last 4 weeks and the last 2 weeks will be student choice of the 4 units. Students will play highly competitive games in this course.

1526
BASKETBALL FUNDAMENTALS AND GAMES (3 Sections)
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

Students will learn the overall fundamentals of basketball but at the same time play highly competitive games. Tuesdays and Thursdays will have a focus on the fundamental skills. Mondays, Wednesdays and Fridays will focus on gameplay. Normal gameplay will be utilized during this course but students will also compete in various basketball small area games.

1530
ATHLETIC CONDITIONING
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

Athletic Conditioning will not count towards the required 1 P.E. elective to graduate.

This course will enable committed student-athletes to train year round in a supervised environment. A strong emphasis will be placed on the prevention of injury through improvement in flexibility, prehab, strength and speed. Students will participate in a training program during their sport(s) season and in the offseason.

Prerequisites: Male or female athletes (sophomore, junior, or senior) that have competed in and completed a season of an interscholastic sport the prior school year.

The written recommendation of the instructor is required.

1535

ADAPTIVE PHYSICAL EDUCATION

Weeks: 18

Grades: 9, 10, 11, and 12

Credit: 0.5

The Adaptive Physical Education Program is designed to meet the needs of the individual who is unable to participate safely and successfully in the unrestrictive activities offered by the regular Physical Education curriculum due to physical or medical issues. These classes offer the special needs student a diversified program of developmental activities, games, sports, and rhythms suitable to the capabilities and limitations of the student. Formal approval by the student's physician and parents must be received by the administration prior to the student's registration into this class. Student most likely will have an IEP for the class.

J.R.O.T.C.

0090	JROTC I	Leadership Education (LE) I	1st Year	Credit 1	Grades: 9-12
0092	JROTC II	Leadership Education (LE) II	2nd Year	Credit 1	Grades: 10-12
0094	JROTC III	Leadership Education (LE) III	3rd Year	Credit 1	Grades: 11-12
0096	JROTC IV	Leadership Education (LE) IV	4th Year	Credit 1	Grades: 12
0098	Advanced Leadership Course	(Learning Levels I-IV)		Credit 1	Grades: 9-12

JROTC CITIZENSHIP/LEADERSHIP DEVELOPMENT PROGRAM AT AMBRIDGE AREA HIGH SCHOOL

The purpose of the program is to develop students (cadets) into smart, strong confident leaders who eventually embark upon a lifetime of noble citizenship by living by our core values of honor, courage and commitment. We encourage students (cadets) to develop habits of orderliness and precision, respect for established authority, self-confidence, responsibility and high standards of personal honor and conduct. Discipline and teamwork will be a major factor in the program. Responsibility and accountability will be paramount. Since the cadets will be representing the United States Marine Corps, they will be required to adhere to the regulations set forth by the Uniform Regulations Manual concerning uniform wear and grooming standards. There is NO obligation to any student (cadet) to join the military after high school, although the benefits are numerous to a cadet if he/she decides to join the military and/or applies for a military scholarship to college. Another highlight of the MCJROTC program is our Career Exploration Program (CEP) which is part of our college and career readiness training. This program helps our cadets successfully explore interests, skills and values as well as careers that are out there.

Junior Reserve Officers Training Corps (JROTC) Cadets (male and female) are taught the principles and traits of leadership and how to apply them. They are taught the rights and responsibilities of good citizenship. They are taught elementary military skills such as map and compass reading, drills and ceremonies, military organization, and mental and physical fitness. The cadets will be required to learn and improve their physical fitness abilities on a weekly basis. The cadets will be taught firearm safety and marksmanship skills in the program. Each cadet will be encouraged to participate in the marksmanship program, however not mandatory.

There may be times after school team participation will be mandatory for our drill, color guard, air rifle and athletic teams.

All cadets are encouraged to participate in parades, drill meets, and various field trips to military bases and historical sites. The cadets will provide community service for various civic organizations within the surrounding communities and the Ambridge Area School District. Cadets are promoted to a position for leadership (Officers and Non-Commissioned Officers) based on demonstrated knowledge, performance, conduct and ability. Each cadet is provided with uniforms and all workbooks and texts as needed. Cadets are required to wear the uniform at least once per week, usually on Wednesdays, and on the days they are assigned flag raising duties. There is no cost to the cadet for these uniforms, unless they abuse or lose them. There will be a Uniform Inspection once a week, which will be graded. They are required to bring their Physical Training (PT) gear every Thursday for PT. The cadets will be issued MCJOTC PT shorts and a green t-shirt.

The training highlights of the year for the MCJROTC program are the Promotion night in November, Unit Inspection from the MCJROTC Headquarter out of Quantico, Va., and the Orientation Trip every spring to Hawaii, Parris Island or historical sites such as the Marine Corps Museum, Gettysburg Battlefield or Shanksville, Pa. the flight 93 memorial, etc. In April, there will be a family oriented Annual Marine Ball with dinner and a ceremony, all of which will be planned, prepared, and performed by the cadets. This will also be awards night for those cadets who have gone above and beyond as leaders in the program. Family members are encouraged to attend this wonderful event. We also attend to a high adventure leadership camp every fall at Camp Guyasuta.

Prerequisite: Students will be encouraged to maintain a 2.5 cumulative grade point average during any academic year and attendance to remain in good standing

ADVANCED LEADERSHIP COURSE (Learning Levels I-IV)

The purpose of the Advanced Leadership Course is to develop the planning, organization, teamwork, and communication skills of the individual cadet. Leadership, discipline and participation will be a major elements of this course. All participants "MUST" be enrolled in a traditional JROTC class to participate in this class. However, there is NO obligation to any student (cadet) to join the military. All cadets in this program WILL be required to plan and organize various JROTC related events throughout the school year and it is highly encouraged that they participate in various leadership camps during the summer. The cadets enrolled in this program will also be required to create an outline and give formal presentations. Additionally, they will be required to be actively involved in our after school activities and **be a member of at least one team.**

The training highlights of the year include the planning and preparation for our Annual Unit Inspection conducted by the United States Marine Corps, the planning and organization of the Annual Military Ball/Awards Ceremony, the Memorial Day and Veterans Day

parades, our annual field trips and promotion night. They will earn their Dress Blue uniform by learning Color Guard, sword manual and how to command platoon drill and they will participate in a Leadership book study.

JROTC ELIGIBILITY and PREREQUISITES (Learning Levels I – IV) and Advanced Leadership: Out of District Enrollment

Here at Ambridge Area School District students outside of AAHS are provided the opportunity to elect to participate in the JROTC program. They will receive one (1) credit towards graduation for each successful year in JROTC. The purpose of the program is to encourage students (cadets) to develop habits of orderliness, precision and self-confidence in order to be a productive and successful member in a global society. At Ambridge Area School District, cadets are held to a high standard of responsibility, personal honor, conduct and respect for established authority here at the district level. In every effort to continue holding cadets to a high standard of excellence while also ensuring their educational goals are adhered to and followed on all levels, cadets will be required to submit necessary documentation in addition to completion of an enrollment form to Ambridge Area School District prior to their acceptance into the JROTC program. After completion, enrollment forms will be reviewed on a case-by-case basis and acceptance into the program will be based on the administrative and supervisory teams in addition to the instructor's discretion.

As responsibility and accountability are paramount to the program, cadets will be held to an academic standard of maintaining a 2.5 cumulative grade point average during their enrollment in the program. Assistance from the district to maintain the designated grade point average will be provided at all levels. Cadets falling below the designated grade point level will meet with their JROTC instructors and school counselor and placed on a probationary period in order to improve their academics. Parent/guardians will be notified throughout the process if their cadet falls below the required academic standings. After two-consecutive nine-week probation periods without improvement, the team will meet and discuss placement and eligibility requirements to remain in the program.

Disciplinary actions will be reviewed during the cadet's involvement in the program. After three disciplinary referrals warranting intervention, the team will meet to discuss appropriate placement at that time. At the discretion of the team, termination from the program may be warranted if violation of the above procedures and protocols continue after the probationary period and school interventions are completed. Immediate termination from the program may also be warranted for disciplinary actions resulting in suspension/threats/bodily harm and actions warranting immediate intervention at the administration and instructors discretion. Disciplinary actions will be reviewed as per case-by-case basis and immediate discharge from the program may be warranted at the discretion of the administration with alternative placements to be discussed. Disciplinary actions for out-of-district students will also be reviewed per case-basis where immediate discharge from the program and district will be at the discretion of AASD and the instructors.

Cadet's attendance is also paramount to their success in the program and overall academic achievement and success. Cadets who are in violation of the attendance policies and codes at Ambridge Area School District will be reviewed, and continued enrollment/dismissal in the program will be discussed with the administrative team and instructors at that time. Attendance will continue to be strongly advised and encouraged to ensure successful completion of their educational years while enrolled in the JROTC program here at Ambridge Area High School.

It is our goal to ensure all cadets in the program continue demonstrating discipline in academics and behavior while succeeding with honor and success at all levels in the program. The program will continue to hold cadets to high standards of excellence while building leadership qualities throughout their educational years. Requirements are also placed to assist cadets in being productive and successful members of a global society after their transition from post-secondary education. As per the curriculum and learning, cadets in the JROTC program are provided the opportunity to learn life-long skills to help in their success for future careers and endeavors after graduation, while also building self-confidence and responsibility that are paramount for success.

Citizenship Development Course (CDC)

Credit .5 (1 semester) Grades: 9-12

Citizenship Development	4.5 weeks	Grades: 9-12
Leadership Development	4.5 weeks	Grades: 9-12
Marksmanship Safety/Skills	4.5 weeks	Grades: 9-12
Orienteering/Land Navigation	4.5 weeks	Grades: 9-12

CITIZENSHIP/LEADERSHIP/LAND NAVIGATION/MARKSMANSHIP CDC AT AMBRIDGE AREA HIGH SCHOOL

The purpose of the Citizenship Development Course (CDC) is to introduce students to the MJROTC program and to develop students into smart, strong confident leaders who eventually embark upon a lifetime of noble citizenship by living by our core values of honor, courage and commitment. We encourage students to develop habits or orderliness and precision, respect for established authority, self-

confidence, responsibility and high standards of personal honor and conduct. Discipline and teamwork will be a major factor in the program. Responsibility and accountability will be paramount.

The students are taught the principles and traits of leadership and how to apply them. They are taught the rights and responsibilities of good citizenship. The students will be taught firearm safety and marksmanship skills in the program. They will be taught the standing, kneeling and prone position and qualify with the air rifle and compete for rifle badges. Each student will be encouraged to participate in the marksmanship program. They are taught elementary military skills such as map and compass reading and participate in the Orienteering Course.

Prerequisite: Students will be encouraged to maintain a 2.5 cumulative grade point average during any academic year and attendance to remain in good standing

FAMILY AND CONSUMER SCIENCE

The Family and Consumer Science program offers courses which are designed to prepare students for independent living. Students acquire knowledge and demonstrate skills in four basic areas of study.

Financial and Resource Management
Balancing Family, Work, and Community Responsibility
Food Science and Nutrition
Child Development

Additionally, courses offered will introduce students to potential careers in all of these areas. Skills are acquired in identifying and solving problems encountered in everyday living and in gaining employment. A positive attitude and good work habits are stressed to prepare students for future personal and public responsibilities. Students selecting courses from the Family and Consumer Science department will gain skills and knowledge that lasts a lifetime.

***A Lab Fee of \$5.00 applies to each Family and Consumer Science, Food & Nutrition course taken.**

0400
FAMILY AND CONSUMER SCIENCE I
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5

The first half of this course includes the study of our economic system, advertising, credit, developing a budget, product safety, and letters of complaint. Students work within a simulation to address income, living expenses, etc. The second half is devoted to foods and nutrition. Basic cooking techniques are taught beginning with breakfast foods and culminating with meats & poultry. Students are also taught the basics of baking including cookies, quick breads and yeast breads.
Prerequisite: None

0405
FAMILY AND CONSUMER SCIENCE II
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5

This Level II course instructs students in the areas of parenting and child care. The stages of child development, the value of play, child care, special needs children and common childhood problems are explored. In the second half of the class, students build on previously taught cooking techniques. In baking, students will learn to make a pie from scratch. They will explore cooking with fruits and vegetables as well as different grains to make healthy meals.
Prerequisite: Family and Consumer Science I or teacher recommendation

0410
FAMILY AND CONSUMER SCIENCE III
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

Students will expand upon their knowledge of consumer education to better understand savings plans, investments, and the use of financial services. Information of health, home, auto and life insurance will be given. In foods and nutrition, students will explore more advanced techniques such as working with puff pastry and phyllo dough. Beginning cake decorating will be taught and students will decorate their own miniature cake. Additionally, students will learn to make use of seasonal ingredients for the best selection, flavor and cost effective meals.
Prerequisite: Family and Consumer Science II or teacher recommendation

0415
FAMILY AND CONSUMER SCIENCE IV
Weeks: 18
Grade: 10, 11, and 12
Credit: 0.5

This final course begins with a focus on marriage & family as well as housing and interior design. Students will focus on relationships and the decision to get married. They will explore what is involved in planning a wedding and staying within a budget. Students will then explore housing options and interior design techniques including the use of space, color, lighting and furniture options. The foods unit will address differing diet requirements for different family members and those with health issues. Students will be instructed in ethnic foods and cooking techniques.

Prerequisite: Family and Consumer Science III or teacher recommendation

0420
ADVENTURES IN FOOD
Weeks: 18
Grade: 10, 11, and 12
Credit: 0.5

This semester long foods course is designed for the student interested in expanding their culinary knowledge. This course will challenge students to prepare more involved recipes from foods suited to entertaining such as appetizers and trifles, to everyday comfort foods like casseroles and crisps. This course will also examine possible careers in the food service industry and some of the educational and training programs available.

Prerequisite: Family and Consumer Science I & II

Lab Fee - \$20

MATH

Students are required to successfully complete four different math courses to meet Ambridge Area School District's math requirement. The math department offers a variety of course selections for a variety of skill levels. Success in math depends upon ability. Please read the Prerequisites carefully and discuss with your family and math teacher the course(s) that best fit your need and aptitudes. (Try to plan your "math career" and always keep in mind where you want to go and what course you need to get there.) Many colleges require that you at least take algebra. If you have questions or concerns, ask a math teacher for help.

0620
ALGEBRA I
Weeks: 36
Grades: 9, 10
Credit: 1

Algebra I is a required course before Algebra II and Geometry. The course consists of solving and graphing equations and inequalities in one and two variables, polynomials, factoring, quadratic equations, proportions, probability, and statistics. Throughout the year in almost every section, students will do **problem solving**, often with **fractions**. **Coming into Algebra I, students should be 100% fluent in multiplication facts from 1 through 12, all operations with fractions, and the concept of a variable. Students should also be able to graph on the coordinate plane.**
Prerequisite: Teacher recommendation

0625
PLANE/SOLID GEOMETRY
Weeks: 36
Grades: 9, 10, 11
Credit: 1

This course is designed to develop a comprehensive knowledge of geometry. Students are advised that geometry is important in preparation for taking the SAT exam. Major units of work include congruent triangles, perpendiculars, parallels, angles, parallelograms, trapezoids, circles, congruence, similarity, angle measurements, area of plane figures, and methods of proof.
Prerequisite: Algebra I and Algebra II

0627
FUNDAMENTALS OF GEOMETRY
Weeks: 36
Grades: 11, and 12
Credit: 1

Fundamentals of Geometry is a slower paced course in Geometry. This course included the principles of plane and solid geometry (e.g. methods of deductive reasoning, angle relationships, parallel and perpendicular lines, congruent triangles, arcs and angles as related to the circle, area of polygons, area and volumes of solids) without as much emphasis on proof. Algebra skills will be practiced and reviewed and applied to geometric topics such as the Pythagorean Theorem. This course is important for those students considering a technical or vocational program after high school.
Prerequisite: Teacher recommended / Algebra I and Fundamentals of Algebra II or Algebra II

0630
HONORS PLANE/SOLID GEOMETRY
Weeks: 36
Grades: 9
Credit: 1

This course is designed for the student who displays an above average skill in mathematics. Students enrolled in this course must be able to reason deductively. Particular emphasis is placed on geometric proofs and the use of geometric formulas. Major units include congruent triangles, perpendiculars, parallels, angles, parallelograms, trapezoids, circles, congruence, similarity, angle measurement, area of plane figures, surface area, volume, and methods of proof. Class activities include lecture and demonstration, group work, problem-solving practice, and daily assignments.
Prerequisite: A in Algebra I

0635
ALGEBRA II
Weeks: 36
Grades: 9, 10, 11
Credit: 1

This course assumes the student is acquainted with the language of algebra and has at least average dexterity in the manipulation of algebraic expressions, equations, and inequalities. Students will solve quadratic equations and systems of equations/inequalities with up to three variables. Also covered are polynomial and radical expressions, logarithms, and a **substantial** amount of **problem solving**. Students are expected to successfully complete quizzes, tests, daily classroom and homework assignments.

****Coming into Algebra II, students should be 100% fluent in multiplication facts from 1 through 12, all operations with fractions, and all Algebra I concepts, especially solving multi-step equations with fractions and graphing linear equations.****

Prerequisite: C or better in Algebra I

0636
FUNDAMENTALS OF ALGEBRA II
Weeks: 36
Grades: 9, 10
Credit: 1

Fundamentals of Algebra II is a slower paced Algebra 2 course. Students will review Algebra I concepts during the first nine weeks and will also prepare for the Keystone Algebra Retake in the winter.

Prerequisite: Algebra I and teacher recommendation

0640
HONORS ALGEBRA II
Weeks: 36
Grades: 10
Credit: 1

This is a more rigorous study of Algebra II for the college bound student. The basic subject matter contained in this course is the same as Algebra II; however, the degree of problem difficulty is increased. Students will use the graphing calculator to solve real world applications. Students will be exposed to concepts that will prepare them for pre-calculus.

Prerequisite: "A" in Algebra I and recommendation of current Geometry teacher.

0645
TRIGONOMETRY
Weeks: 36
Grades: 11 and 12
Credits: 1

Trigonometry, a year long course that prepares students for further studies of mathematics. The course begins by teaching students to measure angles in degrees and radians, arc lengths, and chords. Students then study the basic trigonometric functions, sine, cosine, and tangent, and their inverses as well as the relationships of these functions to chords and right triangles. In addition, students apply their study of trigonometric functions and identities to find angles of elevation and depression and solve right triangles.

Prerequisite: Successful completion of Algebra I, Geometry, and Algebra II

0650
AP® STATISTICS
Weeks: 36
Grades: 10, 11 and 12
Credit: 1

AP courses in statistics consist of a full high school academic year of work and are comparable to courses in colleges and universities. It is expected that students who take an AP course in statistics will seek college credit, college placement, or both from institutions of higher learning. The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: 1. Exploring Data: Describing patterns and departures from patterns 2. Sampling and Experimentation: Planning and conducting a study 3. Anticipating Patterns: Exploring random phenomena using probability and simulation 4. Statistical Inference: Estimating population parameters and testing hypotheses. Students should expect project based assignments during each semester.

Prerequisite: 78% or better in Algebra II

0655
PRE-CALCULUS
Weeks: 36
Grades: 11, and 12
Credit: 1

This course is designed to prepare the academic math student for a calculus course in their next school year. It includes the study of various functions: exponential, logarithmic, and trigonometric functions. The complete graphs of the various functions and solutions to equations involving those functions will constitute a major portion of the course. Scientific and graphing calculators are used throughout the course to help the student connect the theory with real-world problems. A comprehensive study of trigonometry is included.

Prerequisite: "A or B" in Honors Algebra II, or A's in both Geometry, Algebra II and teacher recommend

0660
CALCULUS
Weeks: 36
Grades: 12
Credit: 1

This course is for students who plan to major in mathematics, engineering or any specialized scientific or medical field of study in college. A continuation of topics covered in Pre-Calculus will be explored. Also included will be the study of derivatives and integrals of algebraic, trigonometric and transcendental functions and their application to real-world problems. A graphing calculator will be used throughout the course.

Prerequisite: Pre-Calculus and teacher recommendation required.

0665
ADVANCED PLACEMENT CALCULUS AB®
Weeks: 36
Grades: 11, 12
Credits: 1

AP courses in calculus consist of a full high school academic year of work and are comparable to calculus courses in colleges and universities. It is expected that students who take an AP course in calculus will seek college credit, college placement, or both from institutions of higher learning. AP Calculus AB® is the equivalent of a Calculus 1 course in college. Students will learn at least all of the topics covered on the AP exam, including differential calculus and integral calculus of a single variable, with early transcendentals. Students are highly encouraged to take the Advanced Placement Exam at the end of the course for college credit. A graphing calculator, preferably the TI-84, will be used extensively throughout the course. Class will meet 7 or 8 periods a week, depending on the semester, as one class period every other day is shared with AP Physics.

Prerequisite: "A" in Pre-Calculus and teacher recommendation required.

0670
ADVANCED PLACEMENT CALCULUS BC®
Weeks: 36
Grades: 12
Credits: 1

AP courses in calculus consist of a full high school academic year of work and are comparable to calculus courses in colleges and universities. It is expected that students who take an AP course in calculus will seek college credit, college placement, or both from institutions of higher learning. AP Calculus BC® is the equivalent of a Calculus 2 course in college. The topics for the course begin where AP Calculus AB® left off. They will include additional integration techniques, calculus with polar and parametric equations, sequences and series. Students are highly encouraged to take the Advanced Placement Exam at the end of the course for college credit. A graphing calculator, preferably the TI-84, will be used extensively throughout the course.

Prerequisite: "A" in AP Calculus AB and teacher recommendation required.

0675
SAT PREPARATION/MATH
Weeks: 18
Grades: 10, 11, and 12
Credits: 0.5

This nine-week section of a one-semester course is designed to help prepare students planning on taking the SAT test. The math area stresses problem solving techniques with an emphasis on basic arithmetic, Algebra and Geometry. It is accompanied with a nine-week section on verbal preparation. Students planning to take the SAT test during the fall should take this course in the spring, and students planning on taking the SAT test in the spring should take this course in the fall. A nominal fee of \$25 will be applied towards the purchase of individual classroom materials. These materials will be the students to keep at the conclusion of the class. Prerequisite: None

0680
COLLEGE ALGEBRA: THROUGH COOPERATION WITH CARLOW UNIVERSITY
Weeks: 36
Grades: 11, and 12
Credit: 1

This course is intended to ease the transition for the study of college mathematics. The successful student should be able to acquire a basic vocabulary in mathematics, develop basic skills in manipulating and simplifying algebraic expressions, acquire expertise in solving polynomial equations, linear inequalities, equations involving rational expressions, equations with one radical, and exponential and logarithmic equations, and also graph basic linear, quadratic, absolute value, exponential and logarithmic functions. The course can be followed by Pre-Calculus or Statistics or the course can be a last math course, depending on the student's curriculum. Students have the option to take this class for three college credits through the College in High School Carlow University Program. A nominal fee may apply to receive college credit.

Requirements: Grade of "C" or better in Algebra II and Geometry. A course fee will apply if taking the class for college credit. This course cannot be taken concurrently with Pre-Calculus.

685
INTRODUCTION TO COMPUTER SCIENCE
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

Students will learn the basics of computer programming along with the basics of computer science. The material emphasizes computational thinking and helps develop the ability to solve complex problems. This course covers the basic building blocks of programming along with other central elements of computer science. It gives a foundation in the tools used in computer science and prepares students for further study in computer science, including AP Computer Science Principles and AP Computer Science A courses.

Prerequisites: No prior computer science knowledge or experience is necessary for this course. Students should have passed Algebra I or be concurrently enrolled.

One semester option:

Unit 1: Beginning in Computer Science
Unit 2: Number Calculations and Data
Unit 3: Making Decisions
Unit 4: Repetition and Loops
Unit 5: Graphics

Second semester option:

Unit 6: For Loops
Unit 7: Text and String Processing
Unit 8: Functions
Unit 9: Arrays
Unit 10: 2D Arrays
Unit 11: Internet

0685
AP COMPUTER SCIENCE PRINCIPLES
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

AP Computer Science Principals is a complete, full-year course developed in partnership with the University of Texas at Austin's UTech Institute that focuses on the 7 "Big Ideas" in computer science using project-based approaches. The course introduces students to the creative aspects of programming, abstractions, algorithms, large data sets, the internet, cybersecurity, and how computing impacts our world. Students will develop the computational thinking skills needed to fully exploit the power of digital technology and help build a strong foundation in core programming and problem-solving.

Prerequisites: No prior computer science knowledge or experience is necessary for this course. Students should have passed Algebra I or be concurrently enrolled.

This course will prepare students for the end-of-course AP Exam

Unit 1: Computational Thinking
Unit 2: Programming
Unit 3: Data Representation
Unit 4: Digital Media Processing, Create Performance Task
Unit 5: Big Data 33
Unit 6: Innovative Technologies, Explore Performance Task

0690
AP[®] COMPUTER SCIENCE A
Weeks: 36
Grades: 10, 11, and 12
Credit: 1

Students will learn to design and implement computer programs that solve problems relevant to today's society, including art, media, and engineering. AP Computer Science A teaches object-oriented programming using the Java language and is meant to be the equivalent of a first semester, college-level course in computer science. It will emphasize problem solving and algorithm development, and use hands-on experiences and examples so that students can apply programming tools and solve complex problems. Prerequisites: No prior computer science knowledge or experience is necessary. Algebra 1 is required; Algebra II is recommended. This course requires a strong foundation in English and Mathematics. Students must be comfortable with functions and the concepts found in the uses of functional notation.

Prerequisites: Students should have passed AP COMPUTER SCIENCE PRINCIPLES or INTRODUCTION TO COMPUTER SCIENCE

This course will prepare students for the end-of-course AP Exam.

Unit 1: Intro to Java
Unit 2: Strings and Loops
Unit 3: Strings and One-Dimensional Arrays
Unit 4: Methods
Unit 6: Advanced Classes
Unit 7: Exam Prep

0220
CAREER READINESS
Weeks: 36
Grades: 11 & 12
Credit: 1

Whether you are college bound or going directly into the workforce, this course will focus on basic skills required for any occupation now, or in the future. The focus of this course will be on three foundational skills that are essential to success in most jobs and aligned to the Federal Bureau of Labor Statistics: Workplace Documents, Applied Mathematics and Graphic Literacy. Students will prepare for the National Career Readiness Certificate by demonstrating proficiency in these three areas. The NCRC is an assessment-based credential offered in collaboration with the ACT testing service that measures and certifies the essential work skills needed for success in jobs across industries and occupations. The certificate was created to help employers by certifying that a recipient possesses competency skills required by more than 90 percent of all jobs in the nation. The questions and problems in this course utilizing the ACT WorkKeys Curriculum interactive training system are similar to those on the actual certification exam as well as test taking tips and problem solving hints which prepares you to achieve an excellent score.

This course is designed primarily for juniors and will satisfy the Career Readiness Standards put forth by the Pennsylvania Department of Education.

Pre-requisite: Teacher Recommendation

Course Outline: The Course will cover three areas including Workplace Documents, Applied Math and Graphic Literacy:

0205
WORKPLACE READINESS
Weeks: 36
Grades: 12
Credit: 1

In this course, students will learn about occupations and careers that match not only their interest, but will also be in demand. They will get an idea about the kind of job they will need to support themselves and a family and develop the set of skills that enable them to be trained in a variety of careers. Students will learn how to confidently present themselves and their qualifications to a potential employer and learn good work habits and effective communication skills. Financial Awareness topics include: Checking and Savings Accounts, Budgeting, Credit cards and Loans, Insurance, and Financial Planning.

Pre-requisite: Teacher Recommendation, This course is designed to be sequential to Career Readiness but is not required.

Brief Course Outline:

- Creating Career Goals – Exploring Careers with O*Net Interest Profiler test
- Financial Awareness- Checking and Savings, Budgeting, Credit cards, Insurance, Saving and Investing for retirement
- Preparing for a career- Writing a Resume, Job Search Strategies, Applying for a Job, Interviewing Strategies
- Real world Experience – Job Shadowing, Mentoring, Guest Speakers, Career Ladders

Ambridge Area School District Math Course Mapping (2019-20 School Year)

Please Note: Based on a student's performance, the current math teacher may recommend that the student move to a different pathway.

6	7	8	9	10	11	12
Accelerated Math 7	Algebra 1	Geometry	Honors Algebra 2	Pre-Calculus	AP® Calculus AB	AP® Calculus BC
Advanced Math 6	Advanced Math 7	Algebra 1 (80% + Keystone)	Honors Geometry & (Honors Alg. 2: if wanting AP® Calc. BC)	Honors Algebra 2 Pre-Calculus	Pre-Calculus AP® Calculus AB	Calculus AP® Calculus BC
		Algebra 1 (75%+ Keystone)	Algebra 2	Geometry Fnd. Of Geo.	Pre-Calculus Trig. (then NOT calc.) College Alg. AP® Statistics	Calculus College Algebra AP® Statistics
		Algebra 1 (<75%)	Algebra 1 (C will count as a H.S. MATH CREDIT)	Fnd. Of Alg. 2 Algebra 2	Fnd. Of Geo. Geometry Career Readiness	Trigonometry Pre-Calculus College Algebra AP® Statistics Workplace Readiness (MFDL)
Math 6	Math 7	Math 8	Algebra 1	Fnd. Of Alg. 2 Algebra 2	Fnd. Of Geo. Geometry Career Readiness	Trigonometry Pre-Calculus College Algebra AP® Statistics Workplace Readiness (MFDL)
Learning Support Math 6	Learning Support Math 7	Learning Support Math 8	Algebra 01	Fnd. Of Alg. 2	Career Readiness Fundamentals of Geometry	Workplace Readiness (MFDL)

MUSIC

The High School Music Program attempts to stimulate the student to take an active part in musical activities and to develop an aesthetic understanding of the Fine Arts.

0700
ELEMENTS OF MUSIC
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

Elements of music is an introductory course to music. Students will develop their understanding of music and the language we use to describe it by exploring music fundamentals such as pitch, rhythm, tone color, texture, form, and expression. We will learn about these elements through the study of historical music, music for stage and screen, music for public entertainment, music as identity, and music as media.

Prerequisites: None

0705
BAND (PERFORMING)
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

This is a performing group that stresses ensemble playing. This course includes Marching Band. The remaining time will be divided into Symphonic and Concert Band. Band camp is required and will include all auxiliary units. Attendance and performance at Band Camp will be included in the first nine weeks grade. Junior High Band Director's recommendation is required.

Prerequisites: Teacher recommendation

0710
JAZZ BAND
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

This jazz band is a performing group that fosters elective creativity through the use of improvisation. It promotes the student's sense of true ensemble technique because of the small size of the group. This class can develop all the usual skills acquired in any performing group, as well as a dose of jazz history.

Prerequisites: Teacher recommendation

0715
BAND AUXILIARY
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5

Students who try-out and successfully make one of the several band auxiliary units (belles, silks, flags, or color guard) have an option of signing up for this course or participating as an extra-curricular activity. Students who sign up for the course will receive a grade and .5 credit and must attend one semester during the school year. For credit, will be required to attend band camp, evening rehearsals and any additional rehearsals called outside the school day. They are also required to participate in all band performances and attend Band Auxiliary as a class during the school day.

Students participating as an extracurricular will be required to attend band camp, evening rehearsals and any additional rehearsals called outside the school day. They are also required to participate in all band performances. Those participating as an extracurricular activity must also be aware that due to changes in field drills over the course of the season, they may be assigned different responsibilities and movement during performances. Students must try-out and be selected to one of the squads.

All school rules will apply to all participant when participating as a part of this group.

Prerequisites: Successful audition.

0720
STEEL BAND I
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

This class is the first class of a three year track that creates a unique performing ensemble that will enable students to learn and understand the steel pan art form. Students will develop skills necessary to play unique percussion instruments, learn the cultures of other countries and enhance their overall understanding of musicianship. Students will be given the opportunity to perform in the annual Spring Steel Band Concert. **Students must remain in a HS performing ensemble, including band or chorus to be eligible for this class.**

Prerequisites: Maintained enrollment in MS Band or Chorus and teacher approval

0725
STEEL BAND II
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

This class is the second class of a three year track that creates a unique performing ensemble that will enable students to learn and understand the steel pan art form. Students will continue to develop skills necessary to play unique percussion instruments, learn the cultures of other countries and enhance their overall understanding of musicianship. Students will be given the opportunity to perform in the annual Spring Steel Band Concert. **Students must remain in a HS performing ensemble, including band or chorus to be eligible for this class.**

Prerequisites: Maintained at least an 85% in Steel Band I and teacher approval

0730
STEEL BAND
Weeks: 36
Grades: 9, 10, 11, and 12
Credit: 1

This class is the final class of a three year track that creates a unique performing ensemble that will enable students to learn and understand the steel pan art form. Students will continue to develop skills necessary to play unique percussion instruments, learn the cultures of other countries and enhance their overall understanding of musicianship. In addition to performing in the annual Spring Steel Band Concert, students will be given many opportunities to perform off campus at various events around the region. **Students must remain in a HS performing ensemble, including band or chorus, to be eligible for this class.**

Prerequisites: Maintained at least an 90% in Steel Band II and teacher approval

0735
KEYBOARD LAB I
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5

Keyboard Lab is for students who want to become more proficient piano and synthesizer players through individualized instruction and with the help of computer aided instruction. Grades are based on amount of progress. Students must provide their own headphones. Students, intending to enroll the entire year, must also schedule Keyboard Lab II.

Prerequisites: None

0745
KEYBOARD LAB II
Weeks: 18 – 2nd Semester
Grades: 9, 10, 11, and 12
Credit: 0.5

Keyboard Lab II is a continuation of Keyboard Lab I advancing keyboard skills and performing duets and small ensemble pieces. Students will learn scales, chords, and how to use the computer to create their own songs and enhance songs that they have learned. Students must provide their own headphones.

Prerequisites: A grade of “C” or better in Keyboard I, or audition.

0750
CONCERT CHOIR
Weeks: 36
Grade: 9, 10, 11, and 12
Credit: 1

This is a performing Choir whose members will perform on several occasions including holiday and spring concerts. After school rehearsals and performances are required.

Prerequisite: None

0755
CHAMBER CHOIR
Weeks: 36
Grades: 10, 11, and 12
Credit: 1

Chamber Choir is an upper level course designed for students who will perform periodically for a variety of functions as well as in the holiday and spring concerts. After school rehearsals are required.

Prerequisites: Concert Choir I, audition and Music teacher recommendation.

0760
MUSIC TECHNOLOGY I
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5
Maximum of 16 seats available

Music Technology I is a course for any student in grades 9-12. Students will discover and explore introductory concepts used in music sequencing, notation and recording. No prior musical experience is needed, however, having training on an instrument or voice is helpful. Students will create music using sequencing/editing software, synthesizers and drum machines. Students interested in the current methods of music creation and production should consider taking this course.

Prerequisite: None

0765
MUSIC TECHNOLOGY II
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5
Maximum of 16 seats available

Music Technology II is a course for any students who have successfully completed the course work in Music Technology I. This course reinforces MIDI recording and editing techniques learned in Music Technology I while adding audio recording and mixing techniques into the class projects. Topics covered include mixing, equalization, effects and final mix down of tracks to a finished product. Students interested in music education, music performance or music technology should consider this course.

Prerequisite: 80% in Music Technology I

0770
MUSIC IN POP CULTURE
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: 0.5

This course explores the history of pop and rock music, emphasizing primarily the period between 1950 to present day. Discussion, listening and reading will focus on identifying a variety of rock-music styles within the historical context of the development, transformation, and interaction of pop styles. Student evaluation is achieved through class participation, quizzes, assignments, midterm and final.

Prerequisite: None

0775
UKULELE CLASS
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: .5

Each Student will realize that they can be a ukulele player. This course serves as an introduction to the instrument and will provide students with an instant access to making music on the ukulele. Focus points will be strumming and rhythms, reading music, improvising, and beginning songwriting.
Prerequisite: None

0780
GUITAR 1
Weeks: 18
Grades: 9, 10, 11, and 12
Credit: .5

This one-year course is designed for students with no previous guitar experience. Students will receive guidance and direction in solving problems related to playing the guitar at a beginning level and will learn many of the different styles, skills and techniques required to become a successful guitarist. Areas of concentration include: correct posture, note reading, aural skills, flat-picking, singing songs, rhythmic patterns, chord study, finger-picking styles, musical forms, improvisation and performing experiences.
Prerequisite: None

1420
STAGE CREW – (TECHNICAL THEATRE)
Weeks: 36
Grade: 9-12
Credit: 1

This course will provide students the opportunity to explore theatrical technology. The first semester will focus on the skills needed to carry out the six primary responsibilities of technical theatre, including costumes, props, lighting, sound, stage management, and scenery. During the second semester, students will apply those skills and have the opportunity to participate in the high school musical. Throughout the school year, stage crew will support and provide production staff for all events that take place in the AAHS Auditorium, including general maintenance of auditorium equipment.
Prerequisite: Approval of the Music Department Sponsor

READING

1645 OR 1647
9TH & 10TH GRADE READING
Weeks: 36
Credit: 1

This course includes reading instruction in the areas of fluency and comprehension. Instruction will focus on learning content related to reading words accurately and fluently, incorporating vocabulary strategies to comprehend and addressing the necessary critical thinking skills to understand content information at high levels by connecting reading and writing. Learning activities will focus on making inferences, identifying main ideas, summarizing text, differentiating between fact and opinion, determining the author's purpose, analyzing literary elements, recognizing bias and propaganda, and utilizing graphics, charts, and diagrams as methods to increase comprehension. Material will be presented using Keystone format as a guide through traditional, technological and performance based learning activities. Data based research incorporating PA standards will drive instruction.

Prerequisites: MUST HAVE AN IEP

1648 OR 1649
11TH & 12TH GRADE READING
Weeks: 36
Credit: 1

This course includes remediation in the areas of fluency and comprehension. Instruction will focus on the remediation of oral reading to increase fluency and incorporating vocabulary strategies to increase fluency and comprehension. Learning activities will focus on making inferences, identifying main ideas, summarizing text, differentiating between fact and opinion, determining the author's purpose, analyzing literary elements, recognizing bias and propaganda, and utilizing graphics, charts, and diagrams as methods to increase comprehension. Material will be presented using Keystone format as a guide through traditional, technological and performance based learning activities. Data based research incorporating PA standards will drive instruction.

Prerequisites: MUST HAVE AN IEP

LEARNING SUPPORT – Students must speak with their Individual Education Instructor

1600 English I – Grade 9
1605 English II – Grade 10
1610 English III – Grade 11
1615 English IV – Grade 12
1780 Study Seminar (9-12)

SCIENCE

All 8th grade students will take a placement test to determine their enrollment in Life Science, Biology, or Honors Biology for 9th Grade:

0905
BIOLOGY
Weeks: 36
Grades: 9, 10
Credit: 1

Basic biological principles will be examined during the course of the year with particular attention to the scientific method, the cell, the chemical basis for life, genetics, biological evolution and ecology. Emphasis will be placed on relating the course to everyday life through various laboratory experiences and investigations. Students will take the Keystone Exam at the end of the course.

Prerequisite: Placement determined by results of 8th grade placement test.

0910
HONORS BIOLOGY
Weeks: 36
Grade: 9
Credit: 1

Ninth grade Honors Biology is a higher level survey of all major biological topics including scientific method and reasoning, the cell, biochemistry, ecology, genetics and evolution. The main objectives of this course are: 1) to master the fundamental facts and concepts of biology, 2) to prepare for the Biology Keystone Exam to be taken at the conclusion of this course, 3) develop an appreciation for living things and their environment, 4) to learn laboratory skills and utilize the scientific method of problem solving, 5) to develop good study strategies, critical thinking, and higher reasoning skills, 6) to integrate technology and research methods into the course content, and 7) to promote organizational skills and student responsibility for success at the high school and college levels. Laboratory and computer work is a major component of the class grade.

Prerequisite: Placement determined by results of 8th grade placement test.

0915
LIFE SCIENCE
Weeks: 36
Grade: 9
Credit: 1

This course is a general survey of the major biological topics in life science including the scientific method, the cell, genetics, evolution, and ecology. Emphasis is placed on relating these topics to student experience and everyday life. The main objectives of this course are: 1) to master the fundamental facts and concepts of life science, 2) to develop an appreciation for living things and their environment, 3) to learn laboratory skills and utilize the scientific method of problem solving, 4) to improve reading comprehension, 5) to improve study strategies and critical thinking skills, and 6) to promote organizational skills and student responsibility for continued success at the high school level. The course grade is based on textbook-based written work, quizzes and tests, lab work, class discussion and participation.

Prerequisite: Placement determined by results of 8th grade placement test.

RESTRICTION: Any student who has taken Biology, Chemistry, or Physics may **NOT** take this course.

0920
PHYSICAL SCIENCE
Weeks: 36
Grade: 11
Credit: 1

This course offers an integrated and coordinated science experience for the student by carefully sequencing the content from all physical science disciplines. The students' own life experiences will be used to engage them and to challenge their preconceptions. Students will develop experience in observing phenomena, manipulating materials, collecting and analyzing data and using scientific inquiry.

Prerequisite: Must have successfully completed Life Science and Biology

RESTRICTION: Any student who has taken Chemistry or Physics may **NOT** take this course.

0925
ANATOMY AND PHYSIOLOGY

Weeks: 36
Grades: 11, and 12
Credit: 1

The study of anatomy and physiology provides an essential background for those students pursuing a career in the field of biology, nursing, physical therapy, medicine, medical technician and other related fields. The body of knowledge is both large and complex with the need to know and understand a multitude of structures and functions. There is also personal relevance for the study of Anatomy and Physiology to gain a better understanding of disease and wellness. Using a variety of techniques, students will study basic body structure, cytology, histology, embryology, and most of the body systems. Labs will be an integral part of the course. Prerequisite: A 70% or better in Chemistry OR concurrent with Honors Chemistry AND teacher approval.

0930
CHEMISTRY

Weeks: 36
Grades: 10, 11, and 12
Credit: 1

This course is an introduction to Chemistry meeting minimum requirements for graduation. Topics covered are: conversion factors using the metric system, significant figures, atomic structure, identifying matter and its properties, using the periodic table, types of compounds, and chemical reactions and equations.

Prerequisite: A 70% or better in Biology I **AND** Algebra I or teacher recommendation.

0935
HONORS CHEMISTRY

Weeks: 36
Grade: 10
Credit: 1

This is an introduction of Chemistry. Topics covered will be dimensional analysis using the metric system, history of atomic theory, identifying matter and its properties, the periodic table, elements and compounds, chemical reactions, stoichiometry, kinetic theory, chemical bonding, and the chemistry of acids or bases and salts added. Projects and laboratory activities will be emphasized to the maximum.

Prerequisite: An 85% or better in Biology **AND** Algebra I or teacher recommendation.

0940
ADVANCED CHEMISTRY WITH COLLEGE IN HIGH SCHOOL OPTION

Weeks: 36
Grades: 11, and 12
Credit: 1

A continuation of Chemistry for those going to college and intending to major in any science, engineering, medicine, dentistry, pharmacy, or nursing, and therefore desiring a more complete knowledge of Chemistry. Students taking Advanced Chemistry may also participate in the College in High School Program. Students taking C.H.S. Chemistry will pay \$300.00 to the University of Pittsburgh and participate in various laboratory exercises at the university. Upon successful completion of the course, they will be awarded 4 credits in college chemistry, which are transferable to most colleges/universities they choose to attend.

Prerequisite: An 80% or better in Chemistry **AND** approval of the Chemistry teacher.

0945
BIOTECHNOLOGY

Weeks: 18
Grade: 10, 11 and 12
Credit: .5

Biotechnology is the exploitation and investigation of biological processes for industrial and other purposes that may enhance the way humans are able to interact with the natural world. This type of technological problem solving is regularly used in medicine, health care, energy consumption, conservation, and agriculture, among many other fields of study. The intention of this class is to introduce

students to investigations in which biological concepts are identified and can then be innovated or enhanced by using various types of technology, from using computer systems to collect and analyze data to designing and constructing systems to provide solutions to biological problems. The class will be based on participation in hands-on, inquiry based learning modules. Proper laboratory and safety procedures will be strictly enforced. Students will also be given opportunities to examine various career choices within the realm of biotechnology. Topics of information: Physical Enhancements for Human Health Care, Electrocardiogram, Forensic Science, Genetic Engineering, Aquaponics, Hydroponics, Pollution Management and Waste Management. The class is proposed as a semester course and divided by separating the course into two sections: Biotechnology – Biomedical Topics (covering the first several topics based on human health innovations) and Biotechnology – Environmental Topics (covering the second part of the list dealing with environmental concerns.)

Prerequisites: A 75% or higher in Biology AND willing to work independently or in small groups on inquiry based activities.

0950

PHYSICS 1

Weeks: 36

Grades: 11, and 12

Credit: 1

Students will take **either** Physics 1 **OR** AP Physics 1. This course stresses the mathematical and conceptual development of Mechanics topics and touches upon the topics of electricity, waves, and sound. Mathematical problem-solving, including algebraic manipulation, systems of equations, trigonometric functions, and graphical analysis are used extensively. Laboratory exercises are included to enhance the development of concepts and data analysis techniques.

Prerequisite: An 80% or better in Algebra II and Geometry **AND** at least a 70% in Chemistry I.

0955

ADVANCED PLACEMENT PHYSICS 1

Weeks: 36

Grades: 10, 11, and 12

Credit: 1

This course is designed to meet the demands of the AP Physics 1 syllabus as published by the College Board. The topics covered include Classical Mechanics, Waves and Sound, and an introduction to Electric Circuits. This course is equivalent to a one-semester terminal physics course at the college-level. The course is valuable to the student in two ways. The experience of having taken a college-level science class in high school will be a tremendous help when the student is in college. Secondly, the student can earn college credit by taking the AP Physics 1 exam at the end of the year. This of course depends upon how well the student does on the exam and the college and major in which the student enrolls. Please contact the specific college or university for more information. Mathematics, including trigonometry, geometry, and algebra will be used extensively in this course to solve problems and develop relationships between physical quantities. This course meets 7 ½ periods each week.

Prerequisite: At least an 85% in Algebra II and Geometry **AND** concurrent enrollment in Pre-Calculus, WITH teacher recommendation.

0960

ADVANCED PLACEMENT PHYSICS 2

Weeks: 36

Grades: 11, and 12

Credit: 1

This course is designed to meet the demands of the AP Physics 2 syllabus as published by the College Board. The topics covered include Thermodynamics, Fluid Dynamics, Electricity and Magnetism, Light and Sound, and Topics in Modern Physics. The large number of objectives for the course and the highly analytical nature of the problem-solving make it very demanding. This course is equivalent to a second-semester terminal physics course at the college-level. A student can earn college credit by taking the AP Physics 2 exam at the end of the year. This of course depends upon how well the student does on the exam and the college and major in which the student enrolls. Please contact the specific college or university for more information. Mathematics, including Trigonometry, Geometry, and Algebra will be used extensively in this course to solve problems and develop relationships between physical quantities. This course meets 7 1/2 periods each week.

Prerequisite: At least an 80% in AP Physics I **WITH** Science teacher recommendation

0965

ADVANCED PLACEMENT PHYSICS C: MECHANICS

Weeks: 36

Grades: 12

Credit: 1

This calculus based Physics course is designed to meet the demands of the AP Physics C: Mechanics syllabus as published by the College Board. The Physics C: Mechanics course is equivalent to a one-semester, calculus-based, college-level physics course. It is especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus is used throughout the course.

Prerequisites: At least an 80% in AP Physics 1, AP Physics 2, and AP Calculus AB **WITH** Science teacher recommendation.

1965

ADVANCED PLACEMENT PHYSICS C: ELECTRICITY AND MAGNETISM

Weeks: 36

Grades: 12

Credit: 1

This calculus based Physics course is designed to meet the demands of the AP Physics C: Electricity and Magnetism syllabus as published by the College Board. The Physics C: Mechanics course is equivalent to a one-semester, calculus-based, college-level physics course. It is especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics, conductors, capacitors and dielectrics, electric circuits, magnetic fields, and electromagnetism. Introductory differential and integral calculus is used throughout the course.

Prerequisites: At least an 80% in AP Physics 1, AP Physics 2, AP Physics C: Mechanics, and AP Calculus AB **WITH** Science teacher recommendation

965

EARTH AND SPACE SCIENCE

Weeks: 36

Grades: 10, 11

Credit: 1

Earth Science is a course emphasizing the earth, its environment and place in the universe. Textbooks, laboratory activities, and audio-visual equipment are integrated into a carefully planned sequence in which the students are encouraged to observe, interpret and discuss the problems at hand. This course is divided into two parts: a half year emphasis is on Astronomy, Oceanography, and Meteorology, and a half year emphasis is on Geology. Students must successfully complete both parts for one credit.

Prerequisite: None

RESTRICTION: Any student who has taken Chemistry or Physics may **NOT** take this course.

0970

GEOLOGY

Weeks: 36

Grades: 11, and 12

Credit: 1

The course is designed for students who wish to pursue a career in the field of geo-science. Advanced students with little knowledge of the planet Earth may wish to take this class to round out their science education. This course uses a college textbook, Essentials of Geology, as the foundation of the class. Students will be given carefully planned lectures in the classroom and be tested on these lectures via traditional essay tests and from questions taken from the text. The course will include units on earth materials and processes. Activities in the class include a variety of laboratories.

Prerequisite: At least a 70% in one of the following courses: Chemistry, Physics, Environment & Ecology.

0980

ADVANCED PLACEMENT BIOLOGY

Weeks: 36

Grade: 12

Credits: 1

The AP Biology course is designed to be the equivalent of a two-semester college introductory biology course usually taken by science majors during the freshman year. The course meets 7 1/2 periods per week. Topics to be covered include molecules and cells, heredity and evolution, and organisms and populations. During this double-period, laboratory-based course, students will be expected to read college-level texts independently, think and write critically, take thorough notes from readings, discussions and lectures, express understanding of the unifying themes and concepts of biology and complete 13 college-level laboratory investigations. The course grade will be based on written laboratory activities, individual and group projects, homework assignments, quizzes, tests and

class participation in discussion and critical thinking activities. Preparing students for the AP Biology Exam in May is a major focus of the class. Course examinations are designed to (1) prepare students for college-level exams, and (2) replicate the AP Exam.

Prerequisite: At least an 80% in Biology I and Chemistry, and the recommendation of a Science teacher.

0985

ORGANIC CHEMISTRY

Weeks: 18

Grade: 11, and 12

Credits: 0.5

Organic chemistry is the chemistry of compounds containing carbon. It is a qualitative science course that is designed to prepare you for further scientific study. The topics discussed are: the structural features of organic molecules, nomenclature of organic molecules, a few important chemical substitution reactions, organic compounds such as alkanes, alkenes and alkynes, a molecule's functional group, including those for alcohols, carboxylic acids, ethers, esters, aldehydes, and ketones, as well as physical property differences in a class of organic compounds based on their molecular structure.

Prerequisite: An 80% or better in Chemistry and teacher recommendation.

0990

ADVANCED PLACEMENT CHEMISTRY

Weeks: 36

Grades:

Credits:

The AP Chemistry course provides students with a college-level foundation to support future advanced course work in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. Created by the AP Chemistry Development Committee, the course curriculum is compatible with many Chemistry courses in colleges and universities. Students will take the AP Chemistry test in May which can earn them a college credit based on their score.

Prerequisite:

0995

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

Weeks: 36

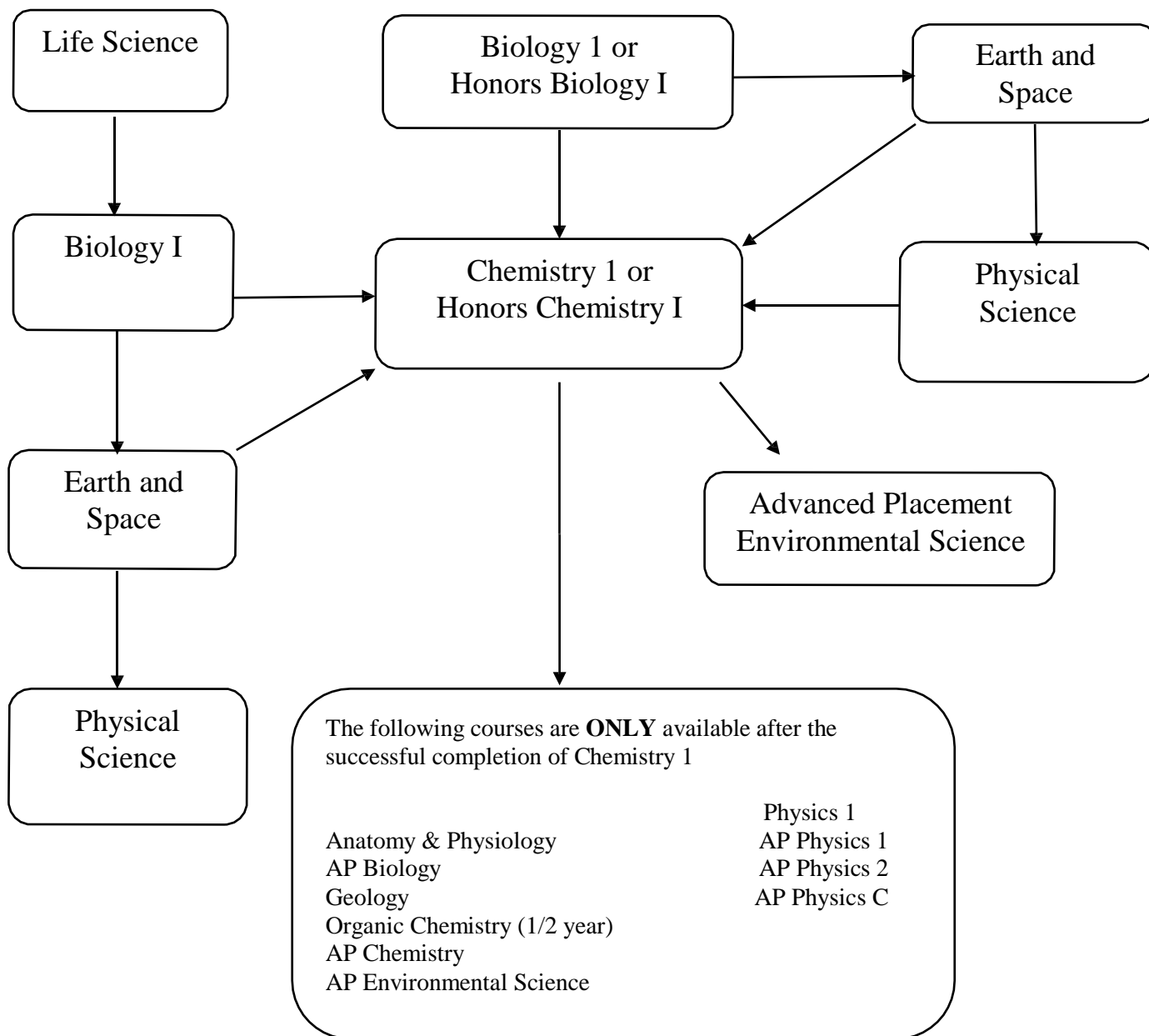
Grade: 12

Credits: 1

AP Environmental Science is designed to educate students about the interrelationships of the natural world around them. It stresses the critical importance of environmental issues that impact our daily lives, focusing strongly on a systems approach of studying the material. Students will apply science as a process to environmental concepts, understand energy conversions which underlie all ecological processes, express their understanding of the Earth being an interconnected system, discuss how humans are altering the Earth whether for the betterment or detriment of a sustainable future, and most importantly how human survival will depend on being able to develop the practices that will achieve sustainable systems. AP Environmental Science is an interdisciplinary course, incorporating the fields of Biology, Chemistry, Physics, Earth Science, Geology, and Astronomy. Laboratory and field investigations will also be incorporated to internalize the concepts learned from the readings and class material and will account for at least 25 % of the class grade.

Prerequisite: 75% or better in Biology and Teacher recommendation or 75% or better in Chemistry or Algebra

The following flowchart will aid you in selecting your science courses while attending Ambridge Area High School. Note that you **MUST** move from top to bottom and/or follow the arrows. Backward or upward movement will ruin the course flow and make student success significantly difficult. Please refer to the Course Selection Book for prerequisites. Most students will start at the Biology I course. Students that do not start 9th grade taking Biology will start with the Life Science course.



SOCIAL STUDIES

All students are required to take four Social Studies courses in order to graduate. They are: American Cultures I, American Cultures II, World Cultures, and U.S. Government/ Economics. In order to complete all Social Studies requirements, a student must complete one course from the course sequence each year. A student may NOT take two required Social Studies courses in one year.

1200
AMERICAN CULTURES I
Weeks: 36
Grade: 9
Credit: 1

This course is intended to give the student a picture of American culture and ideals from the Pre-Colonial Age to the end of the 19th Century. It is intended to make the student aware of the problems that occurred in the early days of history, as well as precedents set during this era and give the student a broad background for American Cultures II.

Prerequisite: None

1205
AMERICAN CULTURES II
Weeks: 36
Grade: 10
Credit: 1

This course covers the period of American History from reconstruction to the present. By tracing the major political, social, cultural, economic, and military events of the U.S. from the late 19th Century to the present, it is hoped the student will gain an awareness of the forces and factors, which have shaped present day America. It is further hoped that the mistakes and problems of the past can help the students make decisions in a democratic society, which will have solid backing by our true heritage. A variety of techniques and procedures are used to make this course interesting and educational. Students will be expected to analyze primary and secondary sources, interpret political cartoons, graphs, and read multiple perspectives on American themes.

Prerequisite: None

1210
WORLD CULTURES
Weeks: 36
Grade: 11
Credit: 1

From early civilization to modern times, students will have an opportunity to compare developments taking place simultaneously among various peoples of the world. Students will compare and contrast differences in social and political institutions, levels of literacy and technology, ethical and religious ideas, history, geography, and economic development. Students will be prepared to evaluate how the politics of one society have affected other societies.

Prerequisite: None

1215
U.S. GOVERNMENT / ECONOMICS

OR

1260
HONORS U.S. GOVERNMENT / ECONOMICS
Weeks: 18 each section
Grade: 12
Credit: 0.5 each section

U.S. Government is an examination of the social, economic, and political problems affecting Americans in their everyday lives. The basic approach to the course is the problem-solving method. Using this approach, the students research the actual growth and development of the United States Constitution and its ramifications upon the government and the citizenry of the United States.

The Economics portion of this course is designed to cultivate the student's economic sense by expanding on their neglected area of the social studies. Economic theory is introduced only to the extent necessary to explain the basis of our free economy upon which this country has been built, and within which he/she lives and will earn a living. This course also explores broader economic problems. Sections dealing with money management, banking, credit, debt and investing will also be covered.

HONORS U.S. GOVERNMENT /ECON Prerequisite: 90% average in regular Social Studies classes and/or 88% in Honors Social Studies classes.

1220
ADVANCED PLACEMENT PSYCHOLOGY (AP)
Weeks: 36
Grade: 12
Credit: 1

Psychology is a survey course dealing with the many areas of psychology, including human development, personality-learning and abnormal behavior. The course is structured to give an insight into many areas rather than a concentration on any one particular area. This course will be the equivalent of an Introduction to Psychology. Students will prepare for and strongly be encouraged to take the AP Exam.

Prerequisite: At least a 88% overall average in Social Studies and a Social Studies teacher recommendation.

1225
HONORS AMERICAN CULTURES I
Weeks: 36
Grade: 9
Credit: 1

This course is designed to give the student a broad picture of the development of American culture and to allow the student to concentrate on the study of thematic topics in our history such as: federalism, the growth of political parties and the western movement. Note taking, library research, oral presentation skills and group work are emphasized. Essay tests are given. The course content starts with the Revolutionary War and runs to the end of the 19th Century.

Prerequisite: 90% average in regular Social Studies classes and/or 88% in Honors Social Studies classes.

1230
HONORS AMERICAN CULTURES II
Weeks: 36
Grade: 10
Credit: 1

This course begins with the Progressive era of American history and includes the entire twentieth century. It is meant to be a chronological study of important events of the century as well as a look at the development of thematic topics such as America's War. Note taking, research, presentation, collaboration, and literacy skills are emphasized. Students will be expected to utilize historical and critical thinking skills to analyze primary sources. All tests include essay questions.

Prerequisite: 90% average in regular Social Studies classes and/or 88% in Honors Social Studies classes and teacher recommendation.

1235
HONORS WORLD CULTURES
Weeks: 36
Grade: 11
Credit: 1

This course is designed to help students fully understand the realities of the world and the global problems of the present and the future. From early civilization to modern times, students will have an opportunity to compare developments taking place simultaneously among various peoples of the world. Students will compare and contrast differences in social and political institutions, levels of literacy and technology, ethical and religious ideas, history, geography, and economic development. Students will be prepared to evaluate how the politics of one society have affected other societies.

Prerequisite: 90% average in regular Social Studies classes and/or 88% in Honors Social Studies classes and teacher recommendation

1240
CONTEMPORARY ISSUES
Weeks: 18
Grades: 11, and 12
Credit: 0.5

The Contemporary Issues course will be an investigative study of local, regional, state, world and international issues. A variety of issues and topics will be researched and discussed. Instruction will involve various book excerpts, magazine and newspaper articles, videos, creative writing and artwork. A variety of issues and topics will be discussed and researched. These issues involve racial discrimination, segregation, affirmative action, perception gaps, hate crimes, and stereotyping. The class will also use films like Crash, American History X and Schindler's List to reinforce discussion. Analytical and writing skills will be emphasized and developed. Students will take each course for one nine weeks. Class participation is essential in both classes.

Prerequisite: At least a 75% average in a previously taken Social Studies class and teacher recommendation.

1245
HISTORY THROUGH THE EYE OF THE LENS
Weeks: 18
Grades: 11, and 12
Credit: 0.5

This course will focus on the relationship between movies and history while stimulating media awareness and critical viewing skills as well as analyzing and interpreting historical events through feature films. A number of questions will be addressed. These include: What is the content of the film? What information does it convey or portray? How is the information affected or determined by the necessity to entertain as well as inform? What influences were at work during the production of the film? How was the film received when released? Is the film historically accurate? Lastly, the course will cover all of the major themes of United States history and a variety of films will be used, including black and white, silent, animated and color. Analytical and writing skills will be emphasized and developed.

Prerequisite: None

1250
ADVANCED PLACEMENT EUROPEAN HISTORY
Weeks: 36
Grade: 11
Credit: 1

This is a full year advanced course equivalent to a Western Civilization survey course found in college. AP European History will survey period 1300 – Present day so that the student will understand the economic, political, social and intellectual changes in European History. Students will learn to analyze historical materials, their relevance to a given interpretive problem, their reliability and their importance to weigh the evidence and interpretations presented in historical scholarship. The Advanced Placement exam will be given in May. This course will supplant World Cultures.

Prerequisite: A grade of 90% or higher in regular Social Studies classes and/or 88% in Honors Social Studies classes.

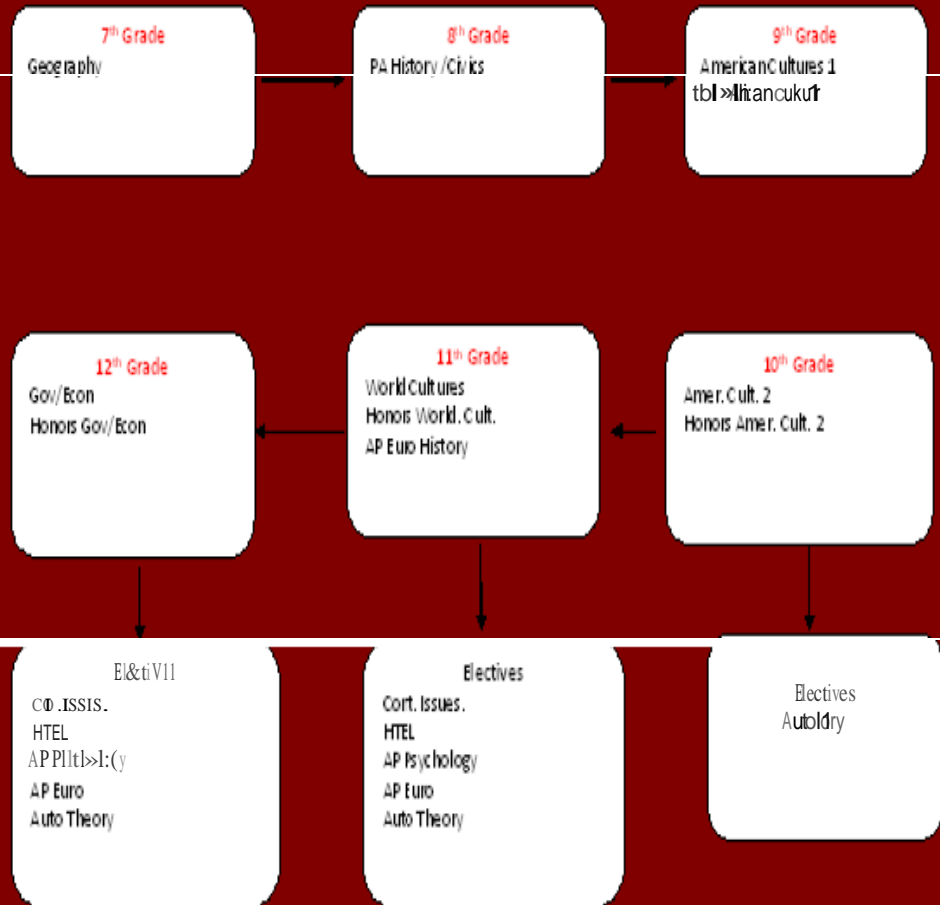
1265
AUTO THEORY
Weeks: 18
Grades: 10, 11, and 12
Credit: 0.5

Focus on PA laws and regulation, vehicle operations, perceptual skills, decision-making, and risk reduction, driving conditions, and influences upon drivers.

Prerequisite: None

Ambridge Area Secondary Social Studies Curriculum Flow Chart

1. Course Map Progression of Classes



SPECIAL EDUCATION

Ambridge Area High School provides programs for the following categories of exceptional students: **Educationally Mentally Handicapped (EH), Learning Disabled (LD), Gifted (see GATE/Gifted), Speech and Language Impaired, and Vision and Hearing Support, Emotional Support and Life Skills Support.**

Learning Support students are encouraged to enroll in as many regular classes as possible. The courses to be taken are determined at the annual Individualized Educational Program (IEP) conference with input from the student, parents, teachers, and a school psychologist.

Learning Support Assistants now work within many regular education classrooms to provide assistance for any students experiencing difficulty. In conjunction with the regular education teachers, they adapt curricula, modify tests, and provide remediation. The primary focus is to provide a positive learning experience for all students.

Students whose special needs cannot be met with the regular education program are assigned to Learning Support classes, which have been deemed appropriate following the Multi-Disciplinary Team Evaluation and IEP conference.

Learning Support Programs provide academic support to L.D., E.M.H. students and Life Skills Students. These students receive assistance with their regular education courses as well as direct instruction. The IEP directs the focus of the assistance. Inclusion is practiced as much as possible. Classes are team-taught by a regular education teacher and a special education teacher. Having students succeed in higher level environments when possible, with the proper assistance, makes for a better, more well-rounded student. Currently, inclusion classes are offered in all subject areas.

The Emotional Support Program is geared toward students whose behavior requires smaller, more structured classes. This allows intense supportive assistance for academics.

None of these programs can be scheduled unless a student has an IEP. For more information, parents are encouraged to contact the Special Education Office at the High School. The telephone number is (724) 266-2833.

Speech and Language Support Program

Students experiencing communications disorders of impaired language, voice, fluency, or articulation to such a degree the academic success is affected are provided with speech and language support.

Vision and Hearing Support Program

Students requiring vision or hearing support are provided with these services through the Beaver Valley Intermediate Unit #27.

Students will be scheduled for a transition course entitled Professional and Career Development in grades 9 and 10. This semester offering will help students make choices on careers while in high school and beyond. This will be discussed during the writing of the IEP.

TECHNOLOGY EDUCATION /APPLIED ENGINEERING

The **Technology Education and Applied Engineering Department** is part of the general education program that offers experiences in exploring, applying, and creating with technology. The technology curriculum includes Bio-Related, Communications, Production (Manufacturing and Construction) and Transportation (Power and Energy) learning activities that align with the Science, Technology, Engineering and Math (STEM) standards. All students will safely use materials, tools, and processes of the major technologies, which are applied in economic and civic life.

Our department offers several clubs: TSA, VEX Robotics, Production and AATV. Successful completion of **Applied Technical Design or Manufacturing Technology I**, qualifies students to further elect a wide variety of courses within our department in order to explore specialized areas of technology and/or join the Technology Student Association (TSA).

Whether you are college bound, thinking about a technical school or the armed services, plan to study a specialty at the Beaver County AVTS, or are directly going to find a job upon graduation, our technology education/applied engineering department has something to offer.

Note: Payment for materials used will be referred to school policy.

1300
APPLIED TECHNICAL DESIGN w/CADD
Weeks: 36
Grades: 9, 10, 11, 12
Credit: 1

Students will complete hands on activities such as balsa wood towers/bridges, model homes and catapults from recycled materials by incorporating board drafting and computer aided drafting and design. Additionally, all students will be able to receive free software downloadable from Autodesk. Mechanical Drawing, Computer Aided Drafting, Autodesk Inventor, and Revit are the software programs that will be taught. After each of the sections engaging activities will establish goals and technological literacy for the students to use in real world applications. Evaluations will be based upon successful completion of sketches, drawings, quizzes, and teacher observation.

Prerequisites: None

1302
INTRODUCTION TO TECHNOLOGY EDUCATION
Weeks: 18
Grades: 9, 10
Credit: 0.5

This class will provide the fundamentals for students to explore the various fields of technology education. Topics will include introductory lessons in Technical drawing and design, video production, graphics, and manufacturing. Students will have the opportunity to use a variety of machines, equipment and software to sample what Tech Ed has to offer. Basics in file management and machine/tool safety will be covered along the fundamentals in technical drawing and design. Students will also explore job opportunities that exist in these fields.

Prerequisites: Teacher Recommendation

1305
MANUFACTURING TECHNOLOGY I
Weeks: 36
Grades: 9, 10, 11, 12
Credit: 1

The students will safely use hand tools and basic machine operating practices as employed in various phases of woodworking. Projects will be manufactured to acquaint the students with materials, processes, and machines used in industry. Evaluation will be based upon completion of projects, quizzes and teacher observation. **NOTE: Students will calculate their individual project costs based on set pricing for board/ft. Payment is required to take projects home.**

Prerequisites: None

1395
VIDEO PRODUCTION I
Weeks: 18
Grades: 9, 10, 11, 12
Credit: 0.5

This course will allow you to explore the communications field of video production. In this hands-on course, you will learn how to operate video equipment and software, plan out a production, and create final products to share with others. Students will learn to use Adobe Premiere, Photoshop, and Flash, as well as other trendy programs. Camera basics, shooting techniques, digital (non-linear) editing, and TV studio concepts will be covered. Projects include: PSA, Commercials, Animations, and Claymation. TVT and TSA competitions are possible.

Prerequisites: None

1345
GRAPHICS DESIGN
Weeks: 18
Grades: 9, 10, 11, 12
Credit: 0.5

This course is a hands-on introduction to the world of graphics and media arts. Activities allow you to design and create T-shirts, Mugs and calendars. Projects will focus on learning the art of Sublimation, Heat Press, 3 color press and airbrush design. Students will learn to use Adobe Photoshop, Flash, and In Design. This course allows the student to become an active member of TSA and the Graphics Club. ***Note: Most materials will be provided, but you may need to purchase t-shirts and other materials based on your project needs.**

Prerequisites: None

TECHNOLOGY EDUCATION: ENGINEERING

1310
ARCHITECTURE I
Weeks: 36
Grades: 10, 11, 12
Credit: 1

Students will explore the methods and techniques used in designing architectural residences both technically and aesthetically with the use of a wide variety of media. Once a final working design has been completed, a floor plan, basement plan, elevations, cross sectional view, plot plan, and a two-point perspective of the exterior will be drawn with AutoCAD Architectural REVIT. This complete set of working drawings is used to build a model. Evaluation will be based upon successful completion of the set of drawings and model, quizzes, and teacher observation.

Prerequisites: A grade of 80% or higher in Applied Technical Design and teacher approval.

1315
ARCHITECTURE II
Weeks: 36
Grades: 11, 12
Credit: 1

Students will further explore the methods and techniques used in designing architectural residences and commercial buildings. The design and layout of each individual room of a residence will include a plan, elevation, and perspective drawing with emphasis upon interior design. This emphasis will be in the form of a presentation type design drawing. Extensive detail drawings will include special sectional views and some framing plans. Major emphasis will be based upon the completion of student generated design to include its working presentation drawings accompanied with a model. Students will incorporate the use of AutoCAD Architectural REVIT. Evaluation will be based upon successful completion of the set of drawings and model, quizzes, and teacher observation.

Prerequisites: Architecture I and teacher approval

1330
ENGINEERING DESIGN I
Weeks: 36
Grades: 10, 11, 12
Credit: 1

This course is designed to prepare students for technical and professional post-graduate fields of study. Students will experience layout and design of several facets of engineering drawings ranging from the most simplified to complex technical drawings. Strong emphasis is placed on student research. Student evaluation will be based upon successful completion of quizzes, tests, research, assigned drawings and completed log entries.

Prerequisites: Applied Technical Design or Manufacturing I or Introduction to Technology Education

1335
ENGINEERING DESIGN II
Weeks: 36
Grades: 11, 12
Credit: 1

Students will further explore the layout and design of complex machine parts. Assignments will include detail and assembly drawings of a robotic device. Basic concepts in Architectural Design will be introduced. Students will incorporate the use of Computer Aided Drafting (AutoCAD) and Autodesk Inventor software in the completion of assignments. The students will be engaged in new processes and research to solve more complex real world problems. Completion of logs through processes will provide a student reflection of goals that are accomplished throughout the projects. Student evaluation will be based upon successful completion of quizzes, tests, research, and assigned drawings and projects..

Prerequisites: Engineering Design I and teacher approval.

1370
TRANSPORTATION TECHNOLOGY I
Weeks: 18
Grades: 10, 11, 12
Credit: 0.5

The students will explore the basic types of transportation systems. Areas of exploration will include land, air, and sea vessels. Sources of energy and a wide variety of power systems will be covered. Laboratory practices supported by theory will serve as the prime activity. Students will become acquainted with the many career opportunities in transportation technology and its related fields. Evaluation will be based upon successful completion of assignments, quizzes, and teacher observation.

Prerequisites: Manufacturing Technology I and teacher approval

1375
TRANSPORTATION TECHNOLOGY II
Weeks: 18
Grades: 10, 11, 12
Credit: 0.5

Students will further explore complex transportation systems. Emphasis will be placed upon, but not limited to, the design of land, air and sea vessels. Advanced study of power systems will be included. Activities areas will include hands-on activities supported by theory. Evaluation of student performance will be based upon successful completion of assignments, quizzes, tests, and teacher observation.

Prerequisites: Manufacturing Technology I and Transportation Technology I and teacher approval.

1380
TSA I
Weeks: 36
Grades: 10, 11, 12
Credit: 1

Students will be formally introduced to a multi-segmented activity based curriculum that provides students with a broad base of competencies in the world of technology and engineering. Problem solving activities will be assigned in the technology areas of transportation, structural engineering, communications, robotics, biotechnology, and production. Students will have the opportunity to participate in the leadership training experience and the competitive events involved with the Pennsylvania Technology Student Association (PA-TSA). Students will compete individually or in groups to gain valuable experience in all areas of systems technology including aspects such as technical writing and prepared presentations. Evaluation will reflect successful completion of assignments and teacher observation.

Prerequisites: A grade of 85% or higher in Applied Technical Design, Graphics or Manufacturing Technology I and teacher approval.

1385
TSA II
Weeks: 36
Grades: 11, 12
Credit: 1

Students will continue their exploration of the multi-segmented curriculum with a variety of STEM and Technology Student Association based activities. The option to continue the Leadership activities and newly implemented competitive events will play an active role in the successful completion of individual and team projects. In addition to expanding on selected TSA I areas, the following additional areas will be explored: Construction and Manufacturing. Evaluation will reflect successful completion of assignments and teacher observation.

Prerequisites: TSA I and teacher approval

1390
TSA III
Weeks: 36
Grade: 12
Credit: 1

Students will have an opportunity to further develop and advance their understanding of technology systems. Leadership activities and newly implemented competitive events will be available and continue to play an active role in the successful completion of individual and team projects. In addition to the TSA I and II technology areas, the opportunity to explore the following additional areas is provided: Animatronics, Open Source Software Development, Scientific Visualization, and Video Game Design. Evaluation will reflect successful completion of assignments and teacher observation.

Prerequisites: TSA II and teacher approval.

TECHNOLOGY EDUCATION: MANUFACTURING

1360
MANUFACTURING TECHNOLOGY II
Weeks: 36
Grades: 10, 11, 12
Credit: 1

Students will explore advanced processes and machine tool operations in woodworking. Advanced projects are selected that meet the student's needs. Evaluation will be based upon successful completion of projects, quizzes, and teacher observation. **NOTE: Students will calculate their individual project costs based on set pricing for board/ft. Payment is required to take projects home.**

Prerequisites: Manufacturing Technology I and teacher approval.

1365
MANUFACTURING TECHNOLOGY III
Weeks: 36
Grades: 11, 12
Credit: 1

This is an advanced course to include the safe use of technical woodworking materials, tools, and processes with emphasis placed upon furniture design. Evaluation will be based upon successful completion of student-designed projects, quizzes, and teacher observation. **NOTE: Students will calculate their individual project costs based on set pricing for board/ft. Payment is required to take projects home.**

Prerequisites: Manufacturing Technology II and teacher approval

1303
MATERIAL FABRICATION
Weeks: 18
Grades: 10, 11, 12
Credit: 0.5

Students will explore basic techniques, methods, and processes used in manufacturing to change materials into parts to be combined into a finished product. Activities will include technical drawing interpretation, safe use of forming, separating, combining, and conditioning processes to construct finished products from mediums including metals and plastics. Evaluation will include quizzes, exams, assessment of "hands-on" projects, process documentation, and teacher observation. **NOTE: LAB FEE**

Prerequisites: Applied Tech or Manufacturing I & Teacher Approval

1355
WELDING AND FABRICATION TECHNOLOGY
Weeks: 18
Grades: 11, 12
Credit: 0.5

Welding/Fabrication methods and terminology will be presented. Individuals will complete sheet metal and wrought iron projects that will utilize spot, gas and electric welding methods. Hands-on activities will also include the foundry process. Students will be introduced to an overview of the Gas and Oil industry including future job opportunities. Student evaluation will be based upon the successful completion of projects, assignments, along with exams and teacher observation. **NOTE: LAB FEE**

Prerequisites: Manufacturing Technology I, Material Fabrication and teacher approval.

TECHNOLOGY EDUCATION: DESIGN

1350
DIGITAL GRAPHICS DESIGN
Weeks: 18
Grades: 10, 11, 12
Credit: 0.5

This course allows the student to experience the digital side of media arts. Put to use color theory, layout principles and elements of design, and photography in hands on activities. These may include: radio advertisements, commercials, web media, photography, print media and of course--t-shirts. Students will learn to use Adobe Photoshop, Flash, In Design, Premiere and more. ***NOTE: Some projects will require a small fee.**

Prerequisites: A grade of 80% or higher in Graphics Design/Teacher recommendation

1352
PRODUCTION GRAPHICS DESIGN
Weeks: 18
Grades: 10, 11, 12
Credit: 0.5

Students will use all the skills learned in prior graphics classes to complete in-depth and multifaceted projects on a variety of different medium. Use of the Heat press, Screen press, Laser Engraver, Vinyl cutter and CNC Router will provide for high quality production of finished products. ***NOTE: Some projects will require a small fee.**

Prerequisites: A grade of 80% or higher in Graphics Design/Teacher recommendation

1398
VIDEO PRODUCTION II
Weeks: 18
Grades: 10, 11, 12
Credit: 0.5

This course will build upon the student's skills and techniques from video production 1. Advanced video production techniques including but not limited to, animation, motion graphics, directing, and scriptwriting will be taught and practiced. Students will be able to use the studio for projects and will be required to film school events, cross-curricular projects, activities, and contribute media for AATV. TVT and TSA competitions are possible.

Prerequisites: A grade of 80% or higher in Video Production I and teacher approval.

1400
TV STUDIO (AATV)
Weeks: 36
Grades: 10, 11, 12
Credit: 1

This course will allow the student to work in a team environment to design, create and produce content for AATV. Students will learn proper studio techniques, design concepts, and production practices. Detailed scripting, journalism and live-on-camera personality skills will be practiced through class produced shows. All course work will be focused around the studio and filming LIVE school district productions.

Prerequisites: A grade of 80% or higher in Video Production I and teacher approval

TECHNOLOGY EDUCATION SPECIAL OFFERINGS

1402
HONORS TECHNOLOGY I
Weeks: 36
Grades: 11, 12
Credit: 1

This course is designed to challenge technology education students in the areas of applied engineering and Science, Technology, Engineering and Math (STEM) integration to include: structural engineering, transportation technology, power technology, manufacturing technology and communications technology. "Hands-on" problem-solving Technology Learning Activities (TLA's) will be presented for solutions by individual, as well as small/large groups. Assessment will include successful completion of selected TLA's, re-designs, anecdotal records including debriefing log sheets, and oral presentations monitored by teacher observation. This is a weighted class.

Prerequisites: A grade of 90% or higher in TSA I or Engineering Design I and teacher approval

1405
HONORS TECHNOLOGY II
Weeks: 36
Grades: 12
Credit: 1

This course is designed to further challenge advanced technology education students in the areas of applied engineering and Science, Technology, Engineering and Math (STEM) integration. Students will problem-solve advanced TLA's. Advanced students will also select technological activity areas of interest for independent study. A research and design problem solving activity will be included. The teacher will approve topics. Students must submit a proposal, keep an anecdotal record, prepare a written report, and present an oral summary of their findings. Assessment will be based upon successful completion, administration, testing and evaluation of the proposed study and teacher observation. This is a weighted class.

Prerequisites: Honors Technology I and teacher approval

0945
BIOTECHNOLOGY
Weeks: 18
Grade: 10, 11 and 12
Credit: .5

Biotechnology is the exploitation and investigation of biological processes for industrial and other purposes that may enhance the way humans are able to interact with the natural world. This type of technological problem solving is regularly used in medicine, health care, energy consumption, conservation, and agriculture, among many other fields of study. The intention of this class is to introduce students to investigations in which biological concepts are identified and can then be innovated or enhanced by using various types of technology, from using computer systems to collect and analyze data to designing and constructing systems to provide solutions to biological problems. The class will be based on participation in hands-on, inquiry based learning modules. Proper laboratory and safety procedures will be strictly enforced. Students will also be given opportunities to examine various career choices within the realm of biotechnology. Topics of information: Physical Enhancements for Human Health Care, Electrocardiogram, Forensic Science, Genetic Engineering, Aquaponics, Hydroponics, Pollution Management and Waste Management. The class is proposed as a semester course and divided by separating the course into two sections: Biotechnology – Biomedical Topics (covering the first several topics based on human health innovations) and Biotechnology – Environmental Topics (covering the second part of the list dealing with environmental concerns.)

Prerequisites: A 75% or higher in Biology AND willing to work independently or in small groups on inquiry based activities.

COURSE CODES BY DEPARTMENT

ART

0115 Art I – Beginning Studio Art
0120 Art II – Intermediate Studio Art
0125 Art III - Advanced Studio Art
0130 Art IV
0135 Drawing I
0140 Drawing II
0150 Jewelry Making
0155 Ceramics/Sculpture
0160 Painting
0170 Art V – Independent Study

BUSINESS/COMPUTERS

0200 Business & Personal Finance I
0201 Business & Personal Finance II
0210 Sports & Entertainment Management
0215 Business Law (Criminal & Civil)
0225 Accounting I
0230 Accounting II
0235 Computer Applications
0245 Internet/Web Design
0270 Marketing I
0275 Marketing II
0280 On The Job Training (OJT) (4)
0285 On The Job Training (OJT) (3)
0290 On The Job Training (OJT) (2)
0295 On The Job Training (OJT) (1)

ENGLISH

0300 College Preparatory English 9
0305 Practical English 9
0310 College Preparatory English 10
0315 Practical English 10
0320 College Preparatory English 11
0325 Practical English 11
0330 Advanced English 10
0335 Practical English 12
0340 College Preparatory English 12 w/College
0345 Advanced Placement Literature & Composition
0350 Advanced Placement English Language & Com
0355 Advanced English 9
0675 SAT Preparation/Verbal
0375 Fundamentals of Public Speaking and Basic Acting
0380 Creative Writing
1430 Newspaper I
1435 Newspaper II
1440 Newspaper III
1445 Newspaper IV

READING

1645 9th Grade Reading
1647 10th Grade Reading
1648 11th Grade Reading
1649 12th Grade Reading

FOREIGN LANGUAGE

0500 Spanish I
0502 Spanish II
0504 Spanish III
0506 Spanish IV
0508 AP Spanish V
0524 Italian I
0526 Italian II
0528 Italian III
0530 Italian IV

MATHEMATICS

0620 Algebra I
0625 Plane/Solid Geometry
0627 Fundamentals of Geometry
0630 Honors Plane/Solid Geometry
0635 Algebra II
0636 Fundamentals of Algebra II
0640 Honors Algebra II
0645 Trigonometry
0652 College Probability & Statistics
0650 AP Statistics
0655 Pre-Calculus
0660 Calculus
0665 Advanced Placement Calculus, AB
0670 Advanced Placement Calculus, BC
0675 SAT Preparation/Math
0680 College Algebra: Through Cooperation with
Carlow University
0685 Advanced Placement Computer Science Principals
0220 Career Readiness
0205 Math For The Daily Living: Workplace Readiness

MUSIC

0700 Elements of Music
0705 Band (Performing)
0710 Jazz Band
0715 Band Auxiliary
0720 Steel Band I
0725 Steel Band II
0730 Steel Band
0735 Keyboard Lab I
0745 Keyboard Lab II
0750 Concert Choir
0755 Chamber Choir
0760 Music Technology I
0765 Music Technology II
0770 Music in Pop Culture
0775 Ukulele Class
0780 Guitar I
1420 Stage Crew – (Technical Theater)

FAMILY AND CONSUMER SCIENCE

0400 Family and Consumer Science I
0405 Family and Consumer Science II
0410 Family and Consumer Science III
0415 Family and Consumer Science IV
0420 Adventures In Food

SCIENCE

0905 Biology
0910 Honors Biology
0915 Life Science
0920 Physical Science
0925 Anatomy and Physiology
0930 Chemistry
0935 Honors Chemistry
0945 Biotechnology
0950 Physics I
0955 Advanced Placement Physics I
0960 Advanced Placement Physics II
0965 Advanced Placement Physics C: Mechanics
965 Earth and Space Science
1965 Advanced Placement Physics C: Electricity & Magnetism
0970 Geology
0980 Advanced Placement Biology
0985 Organic Chemistry
0990 Advanced Placement Chemistry
0995 Advanced Placement Environmental Science
0940 Advanced Chemistry w/College in High School Option

SOCIAL STUDIES

1200 American Cultures I
1205 American Cultures II
1210 World Cultures
1215 U.S. Government/Economics
1220 Advanced Placement Psychology
1225 Honors American Cultures I
1230 Honors American Cultures II
1235 Honors World Cultures
1240 Contemporary Issues
1245 History Through The Eye of the Lens
1250 Advanced Placement European History
1265 Auto Theory

TECHNOLOGY/APPLIED ENGINEERING

1300 Applied Technical Design w/CADD
1302 Introduction to Technology Education
1303 Material Fabrication
1305 Manufacturing Technology I
1310 Architecture I
1315 Architecture II
1330 Engineering Design I
1335 Engineering Design II
1345 Graphics Design
1350 Digital Graphics Design
1352 Production Graphics Design
1355 Welding & Fabrication Technology
1360 Manufacturing Technology II
1365 Manufacturing Technology III
1370 Transportation Technology I
1375 Transportation Technology II

1380 TSA I
1385 TSA II
1390 TSA III
1395 Video Production I
1398 Video Production II
1400 TV Studio (AATV)
1402 Honors Technology I
1405 Honors Technology II
0945 Biotechnology

HEALTH/PHYSICAL EDUCATION

1500 H & PE I
1505 H & PE II
1510 H & PE III
1515 Racquet Sports/Leisure Activities
1520 Weight Training
1521 Weight Training for the Female Athlete
1522 Fitness Walking Elective
1525 Team Sports
1526 Basketball Fundamentals & Games
1530 Athletic Conditioning
1535 Adaptive Physical Education

J.R.O.T.C.

0090 JROTC I
0092 JROTC II
0094 JROTC III
0096 JROTC IV
0098 Advanced Leadership Course (Learning Levels I-IV)

LEARNING SUPPORT

1600 English I – Grade 9
1605 English II – Grade 10
1610 English III – Grade 11
1615 English IV – Grade 12
1620 English (9-12)

BCCTC

1900 BCCTC AM
1905 BCCTC PM

LUNCH

2000 Lunch (1st Semester)
2005 Lunch (2nd Semester)

CCBC AVIATION ACADEMY

CCBC STEM ACADEMY

CCBC CRIMINAL JUSTICE ACADEMY

CCBC HEALTH CAREERS ACADEMY

CCAC APPRENTICESHIP PROGRAM

