



# **Blackhawk**

## High School

### **Program of Studies**

### **9<sup>th</sup> - 12<sup>th</sup>**

### **2022 - 2023**

**500 Blackhawk Road**

**Beaver Falls, PA 15010**

**Phone: (724) 846-9600 - Fax: (724) 891-7113**

## BLACKHAWK SCHOOL DISTRICT

# Mission

The Blackhawk School District's Mission is to empower every student to achieve their best every day.

# Vision

The Blackhawk School District prepares, educates, challenges, and inspires students.

### **We believe that:**

- Each person has value and is worthy of respect.
- A positive and safe environment is necessary for learning to occur.
- All stakeholders (students, staff, administrators and community members) are accountable for the success of our students in the global community.
- We must provide relevant and meaningful learning experiences to meet each student's individual needs: academically, socially, emotionally and physically.
- Rigor, relevance and relationships must be the focus of all programs, learning opportunities and curricular materials.
- Curriculum must be aligned, written, taught and tested.
- Technology is an integrated part of all educational experiences.
- All students, staff and educational leaders are responsible for becoming lifelong learners.
- The district is dedicated to creating a collaborative culture in which all stakeholders' ideas are valued.
- All employees will present themselves as professional and ethical leaders who share the district's vision, mission, and goals.

## SCHEDULING PROCESS

During the current school year, course requests will be gathered from incoming freshmen, sophomores, and juniors. To facilitate the collection of these course requests, high school counselors visit classrooms and meet with groups of students to explain the scheduling process. These course requests are important because they are used to determine the master schedule for the next school year.

Planning your educational program is a serious responsibility. The courses that you choose to study in high school will greatly influence your future life. This Program of Studies Guide is designed to encourage the wise and comprehensive planning of your secondary school program. It is intended to provide sufficient information so that you, the student, and your parents/guardians may take ownership in this planning. In selecting your course of study, give careful thought and consideration to your future educational and vocational goals, to your past academic achievement, and to your abilities, aptitudes and interests.

We encourage all students to build their individual program with these points in mind:

1. Get as much advice as you can in planning your program. The best planning is usually accomplished by the cooperative efforts of students, parents, teachers and school counselors. Career Pathways have been developed to help families with what classes to schedule if a student wants to enroll in courses geared towards a particular field or major.
2. Wherever possible, and assuming your interests are strong, develop a program which allows for a two or three-year study in a particular subject.
3. Avail yourself of the fine arts offerings, which are rich and varied.
4. Do not pass up the opportunity to develop skills and interests in the areas of business education, technology education, family and consumer science, or vocational education.
5. Above all, we want you to realize fully that the four short years you will spend in our fine high school can be a rich period of growth for you. Those students who are not satisfied with the minimum program and who are willing to venture forth in many areas of the curriculum and extracurricular program will find many rewarding experiences.
6. We urge you to consider all of these factors in carefully planning a full program, which will demand your very best performance.

# INDEX

<a href="#">Directory</a>	i
<a href="#">Graduation Requirements</a>	ii
<a href="#">Blackhawk School Counseling Services</a>	iii
<a href="#">Career Readiness Project</a>	iv
<a href="#">General Information</a>	iv
<a href="#">Schedule Changes</a>	iv
<a href="#">Withdrawal from Courses</a>	v
<a href="#">Accelerated Programs</a>	v
<a href="#">Dual Enrollment</a>	vi
<a href="#">College in High School</a>	vi
<a href="#">CCBC Academies</a>	vii
<a href="#">Blackhawk S.T.E.A.M.</a>	viii
<a href="#">Pathways for Graduation</a>	ix
<a href="#">NCAA Requirements</a>	x
<a href="#">9<sup>th</sup> Grade I.M.P.A.C.T.</a>	xi
<a href="#">Sequence of Required Courses</a>	1
<a href="#">English/Language Arts</a>	3
<a href="#">Social Studies</a>	7
<a href="#">Mathematics</a>	9
<a href="#">Science</a>	12
<a href="#">Agriscience</a>	15
<a href="#">World Languages</a>	17
<a href="#">Business, Computers, and Information Technology</a>	20
<a href="#">Computer Science Electives</a>	22
<a href="#">Music</a>	23
<a href="#">Music Academy</a>	24
<a href="#">Art</a>	25
<a href="#">Technology Education</a>	27
<a href="#">Certified Production Technician</a>	31
<a href="#">Family and Consumer Sciences</a>	33
<a href="#">Physical Education</a>	34
<a href="#">Health and Safety/Driver Education and Safety and CDL</a>	37
<a href="#">Beaver County Career and Technology Center - BCCTC</a>	38
<a href="#">Individualized Instruction</a>	42
<a href="#">Pride and Transition</a>	42
<a href="#">Gifted Support</a>	42
<a href="#">EOE</a>	42

# DIRECTORY

Blackhawk School District Administration  
 500 Blackhawk Road  
 Beaver Falls, PA 15010-1498  
 724-846-6600

Dr. Robert Postupac .....Superintendent

Blackhawk High School  
 500 Blackhawk Road  
 Beaver Falls, PA 15010-1498  
 724-846-9600

Mr. Rick Ford ..... Principal  
 Mr. Robert Puskas..... Assistant Principal  
 Mrs. Amanda Pegher ..... School Counselor  
    (Last names A - L)  
 Mr. Andrew Yuhaniak..... School Counselor  
    (Last names M - Z)

# BLACKHAWK HIGH SCHOOL

## MINIMUM GRADUATION REQUIREMENTS

<u>SUBJECT</u>	<u>CREDITS</u>
English	4.0
Social Studies	4.0
Mathematics	4.0
Science	3.0*
Physical Education	2.0
Health	.5
S.T.E.A.M. Elective	1.0
Arts or Humanities	2.0
Electives	<u>3.5</u>
	<b>24.0</b>

- ~~~~~
1. A minimum of 5.5 credits is necessary to obtain sophomore standing.
  2. A minimum of 11.5 credits is necessary to obtain junior standing.
  3. A minimum of 17 credits is necessary to obtain senior standing.

**Students of Blackhawk High School must meet one (1) of the Five (5) Pathways to Proficiency, mandated by the state of Pennsylvania. The Keystone Exams are end-of-course exams that are taken once a student has successfully completed Algebra I, Algebra 1B, General or Lab Biology, and any English 10 course.**

- \* All students are required to take at least 3 science courses, regardless of the credit value.
- \* One credit of Biology is required as part of the 3-science course requirement.

### **RECOMMENDED CREDITS**

Three years of the same world language, while not required for graduation, is strongly recommended for all students. Four years of science is strongly recommended for students intending to apply to competitive colleges.

## **BLACKHAWK SCHOOL COUNSELING SERVICES**

### **Our Mission:**

As leaders and advocates, school counselors from the Blackhawk School District promote rigor, relevance, and relationships among students by providing:

1. Academic opportunities to maximize student potential
2. Career awareness and exploration
3. Healthy decision-making skills
4. Personal, social, and emotional competencies

Thus, the collaborative efforts among Blackhawk community members will ensure that all students are prepared to compete in college and the workplace in an increasingly complex and challenging economy.

The High School Counselors are very willing and eager to assist students and parents in all endeavors throughout high school. The counselors view each student as a unique individual and therefore will tailor services to the student's needs.

The counseling office provides many services, which include but are not limited to:

1. Individual and group counseling
2. Consultation with staff regarding student achievement
3. Implementation of orientation and transitional activities
4. Provide resources to parents and students in order to adequately prepare students for competition in a global market.
5. Administer achievement tests such as Keystone Exams, AP, and PSAT
6. Serve as liaison between the school and community agencies
7. Educational placement assistance
8. College and career education
9. Scholarship assistance

Students requiring services related to social and emotional adjustment may be referred to our Student Assistance Program (SAP). The SAP team consists of several teachers, counselors, administrators, and our school nurse. While team members are not trained as therapists, they are able to assist students and families in finding resources. Students and parents should contact the student's counselor for more information.

Please feel free to contact your child's counselor at any time.

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Last names M - Z

## **COLLEGE & CAREER READINESS PROJECT - SENIOR EXIT INTERVIEW**

As part of their senior English class requirement, students will complete a College and Career Readiness Project/Senior Exit Interview. Components of this project include resume, college application/personal essay, and exit interview with technology-based presentation aid. Completion of this project is a requirement for students to pass their senior level English class, and therefore is also a graduation requirement.

## **COMPUTER SCIENCE/ FINANCIAL LITERACY/INFORMATION TECHNOLOGY CORE CREDIT**

In accordance with House Bill 833, a student who completes course(s) in computer science or information technology will be permitted to apply up to one credit to satisfy the student's mathematics credit requirement for graduation. In accordance with Senate Bill 723 and Act 91, a student who completes a course in financial literacy will be permitted to apply up to one credit to satisfy the student's mathematics credit requirement for graduation.

## **SCHEDULE CHANGES**

We strongly encourage each student to select his or her courses with careful thought and consideration. Many decisions that affect the school's staffing and budgeting needs are based upon course selection.

However, we do recognize that individual circumstances may necessitate a schedule change. In this event, parents must provide a valid reason for the change in writing. The following are considered valid reasons for requesting a course change:

1. Curriculum Program Change – When a student wants to change from one track to another (example – college preparatory to vocational education).
2. Employment – When a student has acquired a part-time job and meets the requirements for an early-work release program.
3. Scheduling Error – When a student requests a specific class but was inadvertently scheduled in another course.
4. Graduation and pre/co-requisite requirements.
5. Teacher recommendation.



## WITHDRAWAL FROM COURSES

Once the school year begins, the following guidelines will be adhered to:

1. If a course is dropped within the first (10) days, there is no record of the drop on the student's transcript. **Exception: Students enrolled in any AP course requiring summer work will receive a "W" on their transcript if the course is dropped after the first 10 days of summer vacation.**
2. If a course is dropped on the eleventh (11) day of enrollment, the course is documented on the transcript as withdrawn ("W"). The letter grade for a withdrawn course is not calculated into the grade point average. No credit is awarded for a dropped course.
3. If a course is dropped after the first nine week grading period, the grade earned will appear on the report card. The class will remain on the transcript but will show a "W" for the remaining grading periods as well as the final grade.

The ability to add a course once the school year has begun depends on several factors including the number of students already in the class, additional changes needing to be made to the student's schedule, the amount of time that has lapsed since the class began, and meeting the prerequisites for the requested course. The ability to drop a course depends on the total number of study halls in a student's schedule. **Students are never guaranteed that they will be able to make changes to their schedules once the school year begins.**

## SPECIAL NOTE TO PARENTS AND STUDENTS

Please assist your child in preparing his/her program of studies. Teacher assignments, classes and schedules are carefully prepared from these student requests. Once school begins, students may withdraw from classes only if it is clearly established with the administrator, teacher, counselor, and parent that the student is incapable of doing the required work. **The principal must approve in advance any request for remediation or enrichment courses not offered by Blackhawk High School.**

## ACCELERATED PROGRAMS

### Advanced Placement (AP)

Blackhawk School District's Advanced Placement (AP) program gives students an opportunity to take college-level courses and exams in high school. Students selecting these courses must be highly motivated. All of the Advanced Placement courses require a prerequisite course and/or teacher recommendation. Significant amounts of reading are required in all disciplines. Some of the courses also require summer work projects and/or reading assignments.

Each AP course has a corresponding nationally standardized exam. While these exams are not required in order to take an AP course, students are encouraged to do so for the many educational benefits, including college credits. Please refer to [www.collegeboard.com](http://www.collegeboard.com) for a complete schedule or see your high school counselor. Students scoring either 4 or 5 on the AP exam typically receive recognition for the AP course from the colleges they enroll in after graduation. For some colleges, the recognition is to allow students to bypass entry-level courses and register in more advanced courses as college freshmen. For others, college credits are awarded for the AP course taken in high school. Each college has their own policy and recommendation toward AP courses. We encourage you to inquire with admissions representatives when visiting or attending college fairs.

AP course offerings are as follows:

AP Biology	AP German
AP Calculus	AP Government & Politics: U.S. History
AP Computer Science	AP Latin
AP Computer Science Principles	AP Music Theory
AP Economics (Micro & Macro)	AP Physics 1
AP English 11: Literature and Composition	AP Physics 2
AP English 12: Language and Composition	AP Spanish
AP Environmental Science	AP Studio Art
AP French Language and Culture	

## DUAL ENROLLMENT

Blackhawk School District, in partnership with Penn State Beaver, the Community College of Beaver County, Geneva College, and Clarion University enables qualified junior and senior level students to enroll in college courses. Students who successfully complete these courses will earn transferable college credits. **Students are responsible for covering the costs of these courses.** More information regarding costs and scheduling are available in the high school counseling office. Students are responsible for transportation. Dual enrollment is offered to enhance the opportunities available to our students, not to replace Blackhawk High School courses. Through dual enrollment, students will be exposed to college-level course work and expectations before starting their freshman year.

- Both traditional classroom courses and online courses are available through dual enrollment.
- Grades earned through dual enrollment are not included in the calculation of GPA.
- Students are responsible for requesting transcripts from the college in which they complete dual enrollment courses.
- Students must earn at least a C or better in order to continue taking classes through the dual enrollment program.
- Course offerings will vary each semester. Registration for fall semester courses typically begins in late March, and registration for spring semester courses typically begins in late October. Some courses may require the student to take a placement exam before the college approves enrollment.

## COLLEGE IN HIGH SCHOOL

College in High School (CIHS) offers Blackhawk High School students the opportunity to earn both high school and college credit in courses taught in our own classrooms. College in High School is an academically rigorous program for students seeking an intellectual challenge within a supportive high school environment. Several classes currently offer students the opportunity to earn college credit from CCBC, University of Pittsburgh, Robert Morris University, and Pittsburgh Technical College (PTC). The CIHS program is expanding to include other classes as well. **Students are responsible for any fees associated with earning CIHS credits.** Credits assigned may be weighted. For additional information on the CIHS program, please see a high school counselor.

College in High School course offerings are as follows:

<b>Class</b>	<b>College</b>	<b>Credits</b>
Advanced Microsoft Applications	Community College of Beaver County	3
AP Biology	Robert Morris University	4
AP Economics	Robert Morris University	6
AP Language and Composition	University of Pittsburgh	3
AP Physics I & II	Community College of Beaver County	4
Architectural Drawing	Pittsburgh Technical College	4
CADD II	Pittsburgh Technical College	4
Chemistry	University of Pittsburgh	4
Drafting & Design	Pittsburgh Technical College	3
Electricity	Pittsburgh Technical College	7
Human Anatomy and Physiology	Robert Morris University	4
Psychology	Community College of Beaver County	3
Statistics	University of Pittsburgh	4
3D Modeling	Pittsburgh Technical College	3

## CCBC High School Academies

The Community College of Beaver County offers four dual enrollment programs for students in grades 10-12. Students enrolled in a program will spend part of their school day at CCBC's facilities completing their dual enrollment coursework.

Transportation is not provided. The cost for the Academies is the responsibility of the student and is based on current CCBC tuition and fee rates. For more information, please go to [www.ccbc.edu](http://www.ccbc.edu)



Are you ready to start the exciting journey of becoming an aviation professional? Let your future take flight by joining the CCBC Aviation Academy. Aviation Academy programs include air traffic control, professional pilot, unmanned aerial vehicle and aerospace management.



The CCBC Health Academy is for high school students in grades 10 through 12 who are interested in careers in nursing, practical nursing, and radiologic technology.



Are you interested in a high paying STEM career? Enroll in CCBC's STEM Academy to engineer your future. You'll gain hands-on experience in our classrooms and labs.



Do you have a passion for serving and protecting? Are you interested in a career in law enforcement? Take custody of your future by joining the CCBC Criminal Justice Academy.



Do you want to inspire learning? Do you desire to empower lives through a career in teaching? Enroll in the Education Academy to become a future educator.



You'll learn technical skills that can then be applied to the planning, design, and construction of a project, from beginning to end. You'll gain hands-on experience in our classrooms and construction learning labs, along with being taught in real-world settings.

**Contact the school counseling office for more details.**



**Blackhawk S.T.E.A.M.**

S.T.E.A.M. is an acronym for Science, Technology, Engineering, Art, and Mathematics. S.T.E.A.M. Schools focus on these subjects to help our nation’s youth gain the skills required to succeed in today’s challenging world. These skills include the ability to problem solve, innovate, be inventors, be self-reliant, be logical thinkers, and be technology literate in science, technology, engineering, art, and math. The curriculums in these courses are aligned to the National Standards for science, technology, engineering, art, and mathematics. Courses that are S.T.E.A.M. courses are identified throughout this Program of Studies with a symbol. Students are required to complete a minimum of one credit in S.T.E.A.M. electives.

S.T.E.A.M. Course Offerings are as follows:

<b>SCIENCE</b>	<b>TECHNOLOGY</b>	<b>ENGINEERING</b>	<b>ART</b>	<b>MATHEMATICS</b>
All students are required to pass at least 3 science courses, regardless of the credit value. A 4 <sup>th</sup> science course on a student’s transcript will be counted as a S.T.E.A.M. elective, this includes all Agriscience classes.	Advanced Microsoft Applications	3D Animation	Graphic Design	All students are required to earn four (4) math credits. Any math course taken beyond four (4) credits will count as a S.T.E.A.M. elective.
	AP Computer Science	3D Modeling	Adv. Graphic Design	
	Computer Science 1 & 2	Applied Engineering and Technology	Digital Photography	
	Entrepreneurship	Architectural and Civil Drafting	Digital Video and Photography	
	Information Technology 1,2,3,4	Architectural CADD	Music Technology 1 & 2	AP Economics
	Microsoft Applications	CADD 1 & 2	Interior Fashion and Design	
	Programming	Geospatial 1 & 2	Advanced Painting	
	Technology Student Association 1 & 2	How Stuff Works	Advanced Ceramics	
	Web Page Design	Mechanical Engineering	Sculpture	
	Technical and Practical Writing	Metal Material Processing		
	AP Computer Science Principles	TSA S.T.E.M. and Leadership		
		Wood Material Processing		
		Drafting and Design		
	3D Printing & Prototyping			

**\*\* Any student attending the BCCTC or in a CCBC Academy counts as a STEAM credit**



**Keystone Exams and Graduation Pathways**

The Keystone Exams are end-of-course assessments designed to evaluate proficiency in academic content. The Blackhawk School District requires students to complete these end-of-course exams in Algebra I, Biology, and Literature. When exam results do not reflect proficiency, students will be required to complete district-approved course offerings. Students will complete the keystones following successful completion of **Algebra 1, Algebra 1B, General or Lab Biology, and any English 10 course**. The numerical scores students earn on these exams are converted into categories of performance called Advanced, Proficient, Basic, and Below Basic. The academic goal for Blackhawk is to have all students score at the proficient level or above on all Keystone Exams. Any student that does not score at the proficient level or above on the Keystone Exam(s) will be required to participate in remediation courses and then will retake the Keystone Exam(s). Should students not achieve proficiency on their second attempt on the exams, students will be required to achieve one (1) of the five (5) state mandated graduation pathways.

## **5 Pathways for Graduation**

In accordance with Pennsylvania’s Act 158 of 2018, beginning with the graduating class of **2023**, students must meet statewide graduation requirements in one of five ways.

**Pathway 1 - Keystone Proficiency Pathway:** Scoring proficient or advanced on each Keystone Exam - Algebra 1, Literature, and Biology.

**Pathway 2 - Keystone Composite Pathway:** Earning a satisfactory composite score of 4452 on the Algebra 1, Literature, and Biology Keystone exams (while achieving at least a proficient score on at least one of three exams and no less than a basic on the remaining two).

**Pathway 3 – CTE Pathway:** For Career and Technical Education (CTE) Concentrators, successful completion of Blackhawk’s Biology, Algebra I, and Literature 10 classes associated with each Keystone Exam on which the student did not achieve proficiency and attainment of an industry-based competency certification related to the CTE Concentrator’s program of study or demonstration of high likelihood of success on an approved industry-based competency assessment or readiness for continued meaningful engagement in the CTE Concentrator’s program of study. For further explanation of the CTE Pathway, please see PDE’s Act 6 guidance.

**Pathway 4 - Alternate Assessment Pathway:** Successful completion of Blackhawk’s Biology, Algebra I, and Literature 10 classes associated with each Keystone Exam on which the student did not achieve proficiency and one of the following:

- a. Attainment of an established score on an approved alternate assessment
  - i. SAT: score of 1010
  - ii. PSAT: score of 970
  - iii. ACT: score of 21
  - iv. ASVAB: the minimum score for admission to a branch of the armed services the year the student graduates
- b. Attainment of an established score of 3 on an Advanced Placement Program (AP) in an academic content area associated with each Keystone Exam on which the student did not achieve at least a proficient score.
- c. Successful completion of a concurrent enrollment course in an academic content area associated with each Keystone Exam in which the student did not achieve at least a proficient score.
- d. Successful completion of a pre-apprenticeship program.
- e. Acceptance in an accredited 4-year nonprofit institution of higher education and evidence of the ability to enroll in college-level coursework.

**Pathway 5 - Evidence Based Pathway:** Successful completion of Blackhawk’s Biology, Algebra I, and Literature 10 classes associated with each Keystone Exam on which the student did not achieve proficiency and demonstration of three pieces of evidence consistent with the student’s goals and career plans. Students must achieve a *total of 3* pieces of evidence from the following list. Please note a maximum of 2 pieces of evidence is allowed from section *e*.

- a. Attainment of established score on a SAT subject test, an Advanced Placement Program Exam:
  - i. SAT Subject Test: score of 630
  - ii. AP Program Exam: score of 3
- b. Acceptance in an accredited, other than 4-year nonprofit institution of higher education and evidence of the ability to enroll in college-level coursework.
- c. Attainment of an industry-recognized credential.
- d. Successful completion of a concurrent enrollment or postsecondary course
- e. (Maximum of 2 accepted from this section): Satisfactory completion of a service-learning project; attainment of a score of proficient or advanced on a Keystone Exam; a letter guaranteeing full-time employment; a certificate of successful completion of an internship or cooperative education program; or satisfactory compliance with the NCAA’s core courses for college-bound student athletes with a minimum grade point average (GPA) of 2.0.

**NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA) REQUIREMENTS**

Prospective student-athletes who plan to participate in Division I or II college athletics are responsible for planning their academic studies in accordance with the NCAA standards.

**Core Courses**

- **NCAA Division I & II requires 16 core courses** to be completed **prior to the seventh semester** (seven of the 10 must be a combination of English, math or natural or physical science that meet the distribution requirements below). These 10 courses become "locked in" at the seventh semester and cannot be retaken for grade improvement.

**Grade-Point Average**

- **Be sure** to look at your high school’s List of NCAA Courses on the NCAA Eligibility Center's website (www.eligibilitycenter.org). Only courses that appear on your school's List of NCAA Courses will be used in the calculation of the core GPA.
- **Division I** GPA required to be eligible for competition is 2.300
- **Division II** core GPA requirement is a minimum of 2.200.
- Remember, the NCAA GPA is calculated using NCAA core courses only.

**Test Scores**

- **Division I & II** uses a sliding scale to match test scores and core grade-point averages (GPA).
- The SAT score used for NCAA purposes includes only the critical reading and math sections.
- The ACT score used for NCAA purposes is a sum of four sections.
- When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 to ensure all SAT and ACT scores are reported directly to the NCAA Eligibility Center from the testing agency.
- Test scores that appear on transcripts will not be used.

**NCAA CURRICULUM ELIGIBILITY STANDARDS**

<b>DIVISION I</b>	<b>DIVISION II</b>
4 years of English	3 years of English
3 years of Math (Algebra 1 and higher)	2 years of Math (Algebra 1 and higher)
2 years of nat./phys. Science (1 year of lab)	2 years of natural/physical science (1 year of lab)
1 year of additional English, mathematics or natural/physical science.	3 years of additional English, mathematics or natural/physical science.
2 years of social science	2 years of social science
4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).	4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).
<b>16 Core Courses</b>	<b>16 Core Courses</b>

**BLACKHAWK HIGH SCHOOL CORE CLASSES NOT APPROVED BY THE NCAA**

<b><u>WORKPLACE WRITING</u></b>
<b><u>CONSUMER MATH</u></b>
<b><u>KEYS TO BIO. AND CHEM.</u></b>

*A student will only receive one science credit for Chemistry Connections and Lab Chemistry. For instance, if a student has Chemistry Connections as a sophomore and then Lab Chemistry as a junior, the NCAA Clearinghouse will only award one science credit toward the core requirements.*

**Blackhawk Online Academy classes are approved by the NCAA**

Click [here](http://www.eligibilitycenter.org) to visit the NCAA website – [www.eligibilitycenter.org](http://www.eligibilitycenter.org)

# 9<sup>th</sup> Grade I.M.P.A.C.T. Blackhawk High School

## What is the 9<sup>th</sup> grade IMPACT?

The 9<sup>th</sup> Grade IMPACT is an academy designed specifically for the needs of our 9<sup>th</sup> grade students. It was developed to assist students in making a smooth and seamless transition from the middle school setting to Blackhawk High School. A dedicated group of teachers, counselors & administrators will work solely with the 9<sup>th</sup> grade students to make certain that each student reaches their full potential. The 9<sup>th</sup> Grade Academy offers a structured, collaborative & consistent environment for the 9<sup>th</sup> grade students where the efforts and accomplishments of each student will be recognized regularly.

## Mission Statement

Our team Invests in our academy through Mentoring, Personal accountability, Academics and Collaboration to help students Transition successfully.

**I** - Investment

**M** - Mentoring

**P** - Personal Accountability

**A** - Academics

**C** - Collaboration

**T** - Transition

**PROGRAM OF STUDIES GUIDE 2022 - 2023**  
**SEQUENCE OF REQUIRED COURSES**

**ALL STUDENTS MUST SCHEDULE A MINIMUM OF 6.5 CREDITS**

**NINTH GRADE**

**REQUIRED:**

<u>English</u>	College Prep English 9, Accelerated Literacy Mastery 9, or Honors English 9
<u>Social Studies</u>	American History 9 or Honors History 9
<u>Mathematics</u>	Algebra 1A, Algebra I*, or Geometry
<u>Science</u>	General Biology* or Lab Biology*
<u>Health 9</u>	
<u>Physical Education</u>	1 course each semester

\*Denotes Keystone Exam requirement at the end of the course.

**TENTH GRADE**

**REQUIRED**

<u>English</u>	College Prep English 10* Accelerated Literacy Mastery 10, or Honors English 10*
<u>Social Studies</u>	American Government or AP Government
<u>Mathematics</u>	Algebra IB*, Algebra I*, Geometry, or Algebra II
<u>Science</u>	Lab Biology, Lab Chemistry, Chemistry Connections, or Agriscience
<u>Physical Education</u>	1 course each semester
<u>Driver Education</u>	

\*Denotes Keystone Exam requirement at the end of the course.

**ELECTIVES**

Students should check the course descriptions to see what electives are available to sophomores.



## **ELEVENTH GRADE**

### **REQUIRED**

<u>English</u>	AP English Literature and Composition, College Prep English 11 or American Literature
<u>Social Studies</u>	World Cultures or Advanced World Cultures
<u>Physical Education</u>	1 course each semester
<u>Mathematics</u>	1 credit based on teacher recommendations
<u>Science</u>	1 credit based on teacher recommendations

### **ELECTIVES**

There are many electives available to juniors. You should read the course descriptions carefully before making your selections.

## **TWELFTH GRADE**

### **REQUIRED**

<u>English</u>	AP English Language and Composition, College Prep English 12 or World Literature
<u>Social Studies</u>	2 semester courses
<u>Physical Education</u>	1 course each semester
<u>Mathematics</u>	1 credit in math

### **ELECTIVES**

Students who will be seniors should read the course descriptions carefully before making choices.

# ENGLISH/LANGUAGE ARTS

**\*\*NOTE: Successful completion of Literature Keystone exams is a federal and local requirement; demonstrating proficiency through the exams is a pathway to reaching state graduation requirements.\*\***

**A research paper is required in all English courses, except electives. This means that if the research paper is not completed, the student cannot pass the course.**

**0110** College Prep English 9 1 Credit 9<sup>th</sup>

In this college preparatory course, students use the writing process to produce informational, persuasive, and creative writings. Students read a wide variety of literature and respond to fiction, non-fiction, poetry and drama using interpretive, critical and evaluative processes. Skills in grammar, vocabulary usage, and speaking and listening will be developed. **Teacher recommendation is required for this course.**

**0112** Accelerated Literary Mastery 9 1 Credit 9<sup>th</sup>

Accelerated Literary Mastery grade 9 is a comprehensive course in English/language arts, which focuses on analysis and synthesis of literature including poetry, fiction, and nonfiction. Writing and speaking to the literature will be a focus, with students crafting narrative, expository, and persuasive writing. Vocabulary will be incorporated, through textual context and will be expected to be reflected in students' writing.

**0106** Honors English 9 1 Credit 9<sup>th</sup>

This challenging advanced course replaces the required 9<sup>th</sup> grade English credit and requires additional reading, analysis, writing, and research. Students MUST be recommended for this course and MUST have an "A" average in their English 8 course, possess good writing skills, and maintain a good work ethic. Limited Enrollment. **There is a summer reading requirement.**

**0116** Honors English 10  1 Credit 10<sup>th</sup>

Honors English 10 is a yearlong course designed for the gifted support student as well as any motivated advanced student demonstrating strength in the areas of analyzing literature and writing (with teacher recommendation). This course is intended as a continuation of the skills learned in Honors English 9 and replaces the option of skipping CP 10 and accelerating to CP 11. Its purpose is to prepare the students for college and for early enrollment in upper level courses in other subject areas that require advanced communication skills. It is a comprehensive course that covers literature analysis, reflective reading, composition, research, speech techniques, and vocabulary, as well as grammar, mechanics, and syntax. Limited Enrollment. Successful completion of each Keystone Exam is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements. **There is a summer reading requirement.**

**0120** College Prep English 10  1 Credit 10<sup>th</sup>

This college preparatory course is an introduction to an understanding and analysis of the various forms of literature: short story, novel, poetry, drama and non-fiction narrative, which includes biography and autobiography. A complete overview of the study of grammatical elements is an integral part of this course. Additionally, students review the steps for drafting a composition. Students will be taught the techniques for writing expository, narrative, creative, comparison/contrast, interpretive, and research papers. Successful completion of each Keystone Exam is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements. **Teacher recommendation is required for this course.**

**0122** Accelerated Literary Mastery 10  1 Credit 10<sup>th</sup>

Accelerated Literary Mastery grade 10 is a comprehensive course in English/language arts, which focuses on analysis and synthesis of literature including poetry, fiction, and nonfiction. Writing and speaking to the literature will be a focus, with students crafting narrative, expository, and persuasive writing. Vocabulary will be incorporated, through textual context and will be expected to be reflected in students' writing. Students will be prepared through the analysis of literature and literary nonfiction for the Keystone exam, which is the end of the year assessment for Grade 10. Successful completion of each Keystone Exam is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements.

**0125 AP English Literature and Composition** 1 Credit (weighted course) 11<sup>th</sup>

AP English Literature and Composition focuses on an understanding of the genres, literary styles and techniques, as well as themes, of major works of literature through the twentieth century. Students will demonstrate their learning by writing to the literature, as well as taking tests simulating the AP English Literature and Composition Test, which students are required to take in the spring to receive possible college credit. **Prerequisites: At least a “B” average in CP10 (0120), teacher recommendation and successful completion of the summer reading assignment.** While students are not required to take the AP exam, it is encouraged.

**0126 College Prep English 11** 1 Credit 11<sup>th</sup>

This college preparatory course focuses on major American authors and their works, tracing the development of American literature from the first English settlement through the present. Students will study essays, short stories, poetry, drama, and novels. Students will respond to fiction, non-fiction, poetry, and drama using interpretive, critical, and evaluative processes. Heavy concentration is given to critical reading and writing narrative, informational, persuasive, and creative/reflective writing. **Teacher recommendation is required for this course.**

**0128 American Literature 11** 1 Credit 11<sup>th</sup>

American Literature 11 is a comprehensive course in English/language arts, which focuses on the time periods and genres of American Literature, beginning with the oral tradition of the Native Americans, through the Revolutionary period with the founding documents, continuing with the Civil War, WWI and WWII, and ending at the Contemporary period. Students will analyze and synthesize both fiction and nonfiction, including poetry and plays. Writing and speaking to the literature will be a focus with students crafting narrative, expository, and persuasive writing. Vocabulary will be incorporated, through textual context and will be expected to be reflected in students’ writing.

**0132 AP English Language and Composition** 1 Credit (weighted course) 12<sup>th</sup>

This course challenges students to become skilled readers and writers of nonfiction. Students will analyze the style and strategies of a wide range of writers and will apply those lessons to their own writing. Major units include argumentative writing and research writing. The course begins with two (2) books and corresponding journal assignments that students must complete independently over the summer and submit electronically. **While students are not required to take the AP exam, it is encouraged. Prerequisites: At least a “B” average in AP English 11 or College Preparatory English 11, teacher recommendation, and successful completion of the summer reading assignments. Students will also have the opportunity to earn 3 college credits through the University of Pittsburgh. This will require a \$225 fee to join the course (Pitt’s College in High School Argument 0500) and some additional work beyond the AP English 12 curriculum.**

**0154 College Prep English 12** 1 Credit 12<sup>th</sup>

This survey course of world and English literature is for those students who are college bound. The course focuses on major authors and their works, tracing the development of world literature from the Ancient Greeks to the 21<sup>st</sup> century. The English literature component traces the development of English literature from the Anglo-Saxon period to present day. Students will use the writing process to produce narrative, informational, persuasive, and creative pieces. Students will respond to fiction, non-fiction, poetry and drama using interpretive, critical and evaluative processes. **Teacher recommendation is required for this course.**

**0155 Workplace Writing – *Teacher Recommendation Only*** 1 Credit 12<sup>th</sup>  
**(Not an approved NCAA course)**

This senior level English class will be the practical application of communication skills. In this class, we will practice reading, writing, speaking, and listening functions that are necessary to solve real-world problems. There will be a heavy focus on formal, professional, and business writings like business letters and emails, along with a heavy focus on nonfiction writing like contracts and instruction manuals. Students will also be required to make appointments and complete a simulated interview for a job equipped with cover letter, resume, and portfolio. **Teacher recommendation is required for this course.**

**0156 World Literature 12** 1 Credit 12<sup>th</sup>


World Literature 12 is a comprehensive course in English/language arts, which focuses on British and World Literature, beginning with mythological origin stories, Anglo-Saxon epic poems, drama, war poetry, Romanticism and Renaissance literature, and ending at the Post-Modernist era. Students will analyze and synthesize both fiction and nonfiction, including poetry and plays. Writing and speaking to the text will include narrative and expository pieces and will focus on essay and persuasive argument. Vocabulary will be incorporated, through textual context and will be expected to be reflected in students’ writing.

## ENGLISH ELECTIVE COURSES

(May not be taken in place of required English courses)

**0133 Creative Writing** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

This is a course in which students may express themselves in various literary forms (such as poetry, short story, plays) and may use various literary techniques after these forms and techniques have been examined. It is assumed that the student has knowledge of the fundamentals of English grammar. Students will study examples of good writing and develop a personal writing style. Emphasis will be placed on revision, drafting, publishing, and presentation.

**0134 Technical and Practical Writing**  .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This elective course is intended to introduce the types of technical and practical writing skills that colleges and S.T.E.A.M. training and careers require. This course is recommended for students who plan to go into careers that require effective written communication, such as technical specialists and workplace writers. This English elective cannot replace a student's core English course.

**0135 Research Writing** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

This writing course is designed for college-bound students and provides extensive formal practice in selecting appropriate resources, documentation and word processing in the MLA format. Recommended prerequisites are College Prep English 10 (0120). Additionally, teacher recommendation is required for this course.

**0137 Journalism I** 1 Credit 12<sup>th</sup>

This workshop course gives students practical experience in writing news, features, sports and headlines. Students in this course plan and produce the *Blackhawk Beat*, and do the morning announcements. **Advisor's recommendation is required for enrollment. Students must apply for consideration at the beginning of the scheduling process. Enrollment is limited. College Prep English 10 (0120), College Prep English 11 (0126) or AP English Literature and Composition (0125) is a prerequisite for this course.** *Due to the nature of this course, students who attempt to publish a plagiarized article will be removed from the course and receive a failing grade.*

**0138 Journalism II** 1 Credit 12<sup>th</sup>

Journalism II builds off of Journalism I. It is a workshop course that finely tunes ones writing as well as exposes students to creating, producing, and editing video. Journalism II students are not only responsible for the monthly submission of an article for the school newspaper, but are also responsible for videos to be viewed at various school sponsored events. **Advisor's recommendation is required for enrollment. Students must apply for consideration at the beginning of the scheduling process. Enrollment is limited. Journalism I (0137) is a prerequisite for this course.**

**0140 Media Literacy** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

Students study major media forms (newspaper, magazine, radio, television, internet, film) to understand the nature of each. Through various projects, students practice analyzing news reports from different media sources, advertising messages, and movies. **A minimum grade of "B" in English is required.**

**0145 Modern Novels** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

Modern Novels, a course for college-bound students, is an in-depth study of major themes and ideas in literature. Four or five current titles will be used in class as well as one novel, which will be chosen individually. Technique, background, biographical information and "point of view" will be discussed. This course will be conducted like a book club, and students will be responsible for purchasing the texts.

**0147 Shakespeare** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

This elective course is designed to give students insight into Shakespeare's style and his continuing impact by reading a variety of his plays including comedy, history and tragedy. Students will study five or six plays as a class and read one play independently. A brief review of Elizabethan theater and Shakespeare's life will be included. Students will attend one or more plays as scheduling permits.

**0170 Public Speaking** .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This is a practical course for those students who wish to improve their oral communication skills for both college and career. A variety of communication-related topics are examined, and general communication skills are stressed. Speeches given in class include speeches to inform, persuade, entertain, and demonstrate. Fundamentals of debate are also discussed and practiced.

**0172 Film as Literature** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

This course will consist of the examination of films similar to the way literature is studied. Historical and sociological aspects will be incorporated into the analysis of classic and contemporary films. All assessments are in the form of essays and will require solid writing skills. **A minimum grade of “B” in English is required.**

**0175 Theater Arts** .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course is designed to give students who are interested in the theater an overview of different areas of theater arts. Students will study the history of the theater, acting technique, voice, stage movement, scene dynamics, and direction. Scripted scenes will be used to practice acting, blocking, and technical design.

**0178 Yearbook** 1 Credit 11<sup>th</sup> - 12<sup>th</sup>  
(Not an approved NCAA course)

This year-long course focuses on production of the school yearbook that comes out each fall. Students will learn page design, photography, and caption writing as they cover all of the groups, events, and activities that go into the yearbook. Students must have at least a “B” average in English. **Interested students must see Mr. McCowin to apply.**

# SOCIAL STUDIES

**0211 American History 9** 1 Credit 9<sup>th</sup>

This course will cover the time period from the end of the 19th century to the 1970s. Students will develop and use their intellectual, reasoning, reflection, and research skills to understand and analyze the major developments of this era in American history.

**0206 Honors American History 9** 1 Credit 9<sup>th</sup>

This advanced course replaces the required American History 9, and covers from Reconstruction to the 1970s. Topics of inquiry include labor history, America's rise to imperialism, World Wars I and II, the Great Depression, and the Cold War. Additional reading, writing, and research will be expected.

**Teacher recommendation required and must have an "A" average in their History 8 course. Limited Enrollment**

**0230 American Government** 1 Credit 10<sup>th</sup>

American Government examines the way in which government in the United States is organized and the impact that many aspects of government have on the lives of citizens.

**0262 AP Government & Politics: United States** 1 Credit (weighted course) 10<sup>th</sup> - 12<sup>th</sup>

**\* This course may be substituted for American Government.** This course gives students an analytical perspective on government and politics in the U.S. This course includes both the study of general concepts used to interpret U.S. politics and the analysis of specific examples. Students will become familiar with the various institutions, groups, beliefs, and ideas that constitute U.S. politics. **While students are not required to take the AP exam, it is encouraged.**

**0220 World Cultures** 1 Credit 11<sup>th</sup>

This required course studies the various cultural groups of the world in relation to customs, government, religion and other factors which influence the groups' behavior and history.

**0221 Advanced World Cultures** 1 Credit 11<sup>th</sup>

This is an advanced version of the required 11<sup>th</sup> grade course for the student who wants a more thorough study of world cultures which includes religion, politics, and geography. Additional reading and writing will be expected. **Teacher recommendation required.**

## SEMESTER ELECTIVES

**0239 Recent American History** .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course will provide an in-depth study of U.S. history and culture beginning with the end of World War II and ending with the 2000's. Major emphasis will be on political issues, foreign affairs, changes in our society and popular culture. Topics will include: The Cold War, Civil Rights Movement, Impact of Television, Vietnam, Rebellion in the 1960's, Watergate Scandal and Worldwide Terrorism.

**0240 Early European History** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

This is a semester course analyzing the rise and fall of Western European civilizations from Ancient Greece through the European Renaissance. Students will discover the significance of each civilization by investigating archaeological, historical, and geographical evidence. Each unit will serve as a lesson to help us determine how we can learn from the achievements and mistakes of past peoples.

**0241 Current Issues** .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

Become informed about what is happening in the world around you today. Come prepared to debate and support your opinions on a variety of topics that are relevant to student interests, e.g., The Death Penalty, Immigration, Steroids in Sports, Criminal Justice, Gun Control, etc. Students will be able to discuss and examine the most pressing current issues facing the United States and other world nations, as well as develop a perspective on local and state issues.

**0244 Law and Order** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

Law and Order is a fascinating course that deals with; juvenile justice, crimes against the person, defenses used in the court system, human rights, terrorism, technology, gun control and street law. The curriculum for this course will include case studies, current legal debates, role-plays, mock trials, small group exercises, and visual analysis activities. This course will provide new information, practical advice and investigations designed to provide students with the ability to analyze, evaluate and resolve legal disputes on topics of personal interest. The true genius of this class is that it is dedicated to empowering students through law - related education.

**0245 CIHS Psychology** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

College in the High School Psychology is taught at the first-year college level and is designed to be equivalent to a one-semester introductory level college course in Psychology. Upon successful completion of this course, students have the opportunity to earn three college credits. Students have the option of earning three (3) college credits through CCBC by paying the \$180 tuition fee to CCBC through our College in High School program. Psychology is the study of the mind and behavior. This course explores how the discipline embraces all aspects of the human experience from the functions of the brain to the actions of individuals. The topics of sensation and perception, personality, sleep, maladaptive behaviors, and the causes of mental deviations are key focal points of the content covered. In every conceivable setting, from scientific research centers to mental health care services, the understanding of behavior is the subject of Psychology. The class will also include new developments in the field, so students can appreciate how Psychology encompasses a wide range of diverse subjects.

**0246 Sociology** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

Sociology is the social science that studies human society and social behavior, with an emphasis on groups. Discover how people relate to one another and influence each other's behavior by observing and participating in social interactions. This course includes hands-on activities and group participation. Identify the social problems facing our society today. Major units include cultural conformity and adaptation, adolescence and criminology.

**0248 Geography** .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course will be made up of a series of short introductions to the various aspects of geography. These will include map-making, natural resources, climate, economics, political and cultural geography. An emphasis will be placed on how the United States got their shapes, the interaction of people and their environment, and continued movement toward globalization.

**0249 Anthropology** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

Anthropology is a discipline of boundless curiosity concerning human beings and their world. It examines humans and their relationship to their distant past, hoping to answer questions about humans concerning how and why societies in the past and present have varied in their customary ideas and practices. This course will introduce students to Cultural Anthropology which is divided in three major subfields: Ethnology, Linguistics, and Archaeology. All of these subfields will be covered in detail in this course. Prerequisite: Strong writing/reading skills.

**0260 AP Economics**  1 Credit (weighted course) 10<sup>th</sup> - 12<sup>th</sup>

This year-long economics course is broken into two parts. The purpose of the AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy.


The purpose of the AP course in macroeconomics is to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. Such a course places particular emphasis on the study of national income and price-level determination, and also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. The course can be applied at student expense to earn up to six transferable credits through Robert Morris University. **While students are not required to take the AP exam, it is encouraged.**

**0247 Legal Oratory and Debate I (FALL SEMESTER ONLY)** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

In this advanced semester course, students will study legal procedure and the criminal justice system. Students will apply knowledge in conducting direct and cross examination, laying foundation, raising evidentiary objections, and crafting opening statements and closing arguments. Class will consist of lectures and hands-on experience in small groups, using case materials created by the Pennsylvania Bar Association's Young Lawyers Division, and will prepare students for mock trial and moot court exercises. Individuals who excel in the class are extended an invitation to represent the school in regional competition. **Interested students must see Mr. Tripodi to apply.**

# MATHEMATICS

**\*\* NOTE: Successful completion of Algebra 1 Keystone exams is a federal and local requirement; demonstrating proficiency through the exams is a pathway to reaching state graduation requirements.\*\***

 All students are required to earn four (4) math credits. Any math course taken beyond four (4) credits will count as a S.T.E.A.M. elective

**1521** High School Pre-Algebra 1 Credit 9<sup>th</sup>  
(Not an approved NCAA course)

High School Pre-Algebra is a bridge course for students that need extra support mastering Algebraic concepts to prepare for the Keystone Exam. Students are scheduled into this class by teacher recommendation only.

**0310** Algebra I - A 1 Credit 9<sup>th</sup>

Algebra I-A builds the foundation for all other courses in the math sequence. The IA-IB sequence covers the entire Algebra I curriculum but at a slower pace so that students may increase their depth of knowledge. Students will develop their understanding of the real number system and familiarize themselves with the techniques of algebra including the language of algebra, its properties, and methods of solving equations. Probability and Statistics topics will be covered as well as simplifying radicals. Students will also learn about graphing, writing, and solving linear equations as well as systems of equations. **Students must have completed 0300 (Pre-Algebra) or Math 9. \*Only approved as .5 credit from NCAA Clearinghouse.**

**0311** Algebra I - B  1 Credit 10<sup>th</sup>

Algebra I-B completes the Algebra I curriculum started in Algebra I-A. Students will take the Algebra I Keystone exam at the end of this course. Students will explore methods of solving inequalities and systems of inequalities. Students will also learn to simplify and factor polynomials, exponents, and begin to explore quadratic functions. Successful completion of each Keystone Exam is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements. **Students must have completed 0310 (Algebra I -A) at the high school. \*Only approved as .5 credit from NCAA Clearinghouse.**

**0312** Algebra I /Keystone Course  1 Credit 9<sup>th</sup> - 12<sup>th</sup>

Algebra I is the foundation course in the academic mathematics sequence. The intent of this course is to continue to deepen students' understanding of the real number system and for students to master all of the techniques of algebra at the highest level, including the language of algebra, its properties, and methods of solving equations and inequalities. Students will also master graphing and solving linear and quadratic functions. An emphasis will be placed on applications and problem solving. Successful completion of each Keystone Exam is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements. **Students must have completed course Pre-Algebra with a 90% or better, or course Algebra I-A at Highland.**

**0322** Geometry - 9 1 Credit 9<sup>th</sup>

This course introduces deductive reasoning proofs and develops properties of triangles, polygons, and circles. **Students must have completed course 0302 (Algebra I - 8<sup>th</sup> grade) with an 80% or better or proficient on the Algebra Keystone.** (Students who are *not* proficient on the Keystone exam will complete online Algebra remediation before retaking the Algebra Keystone.)

**0323** Geometry 1 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course introduces deductive reasoning proofs and develops properties of triangles, polygons, and circles. **Students must have completed course 0312 (Algebra I) or 0311 (Algebra I-B).** (Students who are *not* proficient on the Keystone exam will complete online Algebra remediation before retaking the Algebra Keystone.)

**0334** Algebra II – 10 1 Credit 10<sup>th</sup>

Algebra II is a rigorous course that builds upon the mastery of Algebra I material. Students will explore complex imaginary numbers and quadratic, polynomial, rational, and radical functions. **Students must have completed the course 0322 (Geometry 9) to select this course.**



**0332 Algebra II with Keystone Remediation**

1 Credit

11<sup>th</sup> - 12<sup>th</sup>

Algebra II builds upon the mastery of Algebra I material. It extends the knowledge of Algebra I to include advanced linear equations and systems of equations. Then quadratic, polynomial, radical, rational and logarithmic functions are explored in detail. **Students must pass 0323 (Geometry) but NOT yet be proficient on the Algebra 1 Keystone to select this course or must pass 0311 (Algebra 1-B).**

**0333 Algebra II**

1 Credit

11<sup>th</sup> - 12<sup>th</sup>

Algebra II is a rigorous course that builds upon the mastery of Algebra I material. It extends the knowledge of Algebra I to include advanced linear equations and systems of equations. Then quadratic, polynomial, radical, rational and logarithmic functions are explored in detail. **Students must pass 0323 (Geometry) and be proficient on the Keystone exam to select this course.**

**0309 Consumer Mathematics  
(Not an approved NCAA course)**

1 Credit

12<sup>th</sup> - *by invitation only*

Consumer Mathematics will cover math skills that students can apply to everyday living once they finish their education, including monitoring their weekly and yearly wages, managing a household, purchasing and maintaining a car, budgeting money, banking and investing, paying taxes and preparing for a career. This is a good course for students immediately entering the work force after high school. **Students cannot select this course without teacher recommendation– it is by invitation only.**

**0335 Statistics I**

.5 Credit

10<sup>th</sup> - 12<sup>th</sup>

This is a rigorous one-semester course devoted to the study of statistical topics. It is designed for students who plan to enroll in a four-year college program and would be of benefit to those who plan to pursue a career in business, education, psychology, mathematics or science. **Students selecting this course must have passed Algebra 1 and Geometry. A graphing calculator is required for this course.**

**0337 Statistics II**

.5 Credit

10<sup>th</sup> - 12<sup>th</sup>

This one-semester course will continue to build on the ideas and theories learned in Statistics I. Statistics II discusses confidence intervals, estimates and sample size, hypothesis testing, and correlation and regression. This course has a strong focus on analysis and interpretation and is designed to be less math – intensive. **Students electing to take this course must have passed Statistics I. A graphing calculator is required for this course.**

**0338 CIHS Statistics – University of Pittsburgh**

1 Credit (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

This course teaches methods of descriptive and inferential statistics. It is equivalent to a college level introductory statistics course. Topics include data collection and description, hypothesis testing, correlation and regression and the analysis of variance, and contingency tables (chi square). Students will learn how to use statistical software on the TI-84 graphing calculator and will be introduced to MINITAB software. Students will have the opportunity to earn 4 University of Pittsburgh credits upon the successful completion of this course. **Students must have completed Algebra 2 with an 90% or Pre-Calculus with an 83% to select this course. A graphing calculator is required for this course.**

**0340 Trigonometry**

.5 Credit

11<sup>th</sup> - 12<sup>th</sup>

This is a one-semester course devoted to the study of relationships among the trigonometric functions. It is designed and oriented for the student who plans to enter a non-mathematical field of study beyond high school. **Students selecting this course must have passed Algebra II and Geometry. Note: This is not a prerequisite to AP Calculus.**

**0341 Algebra III**

.5 Credit

11<sup>th</sup> - 12<sup>th</sup>

This is a course designed to extend Algebra II with selected mathematical topics such as matrices, determinants, series and sequences, conic sections, logarithms etc. **Students selecting this course must have passed Algebra II and Geometry.**

**0345 Advanced Math Application**

.5 Credit

11<sup>th</sup> - 12<sup>th</sup>

This is a one semester course that explores the real-life applications of Algebra 2 and Geometry. Students will complete a variety of projects on math topics ranging from graphing functions, conics, the stock market, and building bridges while minimizing cost. **Students selecting this course must have passed Algebra II and Geometry.**

**0347 Pre-Calculus**

1 Credit

11<sup>th</sup> - 12<sup>th</sup>

This course begins with an in-depth study of analytical geometry concepts that concentrate on the relationship between Algebra and Geometry as related to functions. It then covers the trigonometric functions in detail. It is a rigorous course, designed for students with science, mathematics, engineering, medical and related interest fields. **Students selecting this course must have completed 0333 or 0334 (Algebra II) with an 83% or better. 0332 (Algebra 2 – with Keystone remediation) is NOT a prerequisite for Pre-Calculus. A graphing calculator is required for this course.**

**0350 AP Calculus**


1 Credit (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

A course that is rigorous and challenging for the capable mathematics student wanting to enter a field in college that is mathematically related; e.g. engineering, chemistry, physics, mathematics, and computer science. Students electing to take this course should have completed four (4) years of academic mathematics with final grades of at least a "B". A mathematics teacher should be consulted in case of uncertainty. **Students selecting this course must have completed 0347 (Pre-Calculus) with an 83% or better. While students are not required to take the AP exam, it is encouraged. A graphing calculator is required for this course.**

# SCIENCE

**\*\* NOTE: Successful completion of Biology Keystone exams is a federal and local requirement; demonstrating proficiency through the exams is a pathway to reaching state graduation requirements.\*\***

 All students are required to pass at least 3 science courses, regardless of the credit value. A 4<sup>th</sup> science course on a student's transcript will be counted as a S.T.E.A.M. elective.

**0410 CIHS Human Anatomy and Physiology** 1 Credit (weighted course) 11<sup>th</sup> - 12<sup>th</sup>

This course will primarily focus on the structure and function of the human body system. This is a rigorous course designed for students with a high interest in the biological system of humans and/or those who may wish to pursue further education in an allied health career. Students will explore and learn about human tissue types as well as skeletal, muscular, cardiovascular, respiratory, nervous, endocrine, digestive, excretory, and reproductive system through class discussions, labs, and dissections. To enroll, students should be comfortable with dissection and working with preserved specimens. This class meets for a single period every day. **Prerequisite Courses: Lab Biology & Lab Chemistry. Students must have earned an 80% or better in both prerequisite courses and be recommended by their current science teacher in order to enroll in this course. Students entering their sophomore year may be invited by their Lab Biology teacher to take this course as a sophomore concurrently with Lab Chemistry if they are an exceptionally strong academic student in Lab Biology and have a high interest in pursuing post-secondary education in a medical related field of study.** College in the High School (CIHS) Biology is also offered to junior or senior students at Blackhawk as a means of earning 4 college Biology credits through Robert Morris University. (BIOL 1210 & BIOL 1215). Students are responsible for the tuition fee charged by the University for this option. The fee will be collected from students in September for students who choose to take the course for CIHS credit.

**0420 General Biology (Keystone Exam Course)**  1 Credit 9<sup>th</sup> - 12<sup>th</sup>

Biology is a course designed to introduce basic biological concepts for practical everyday use. This course covers biomolecules, cell structure and function, cell processes, genetics, evolution, and ecology. This course emphasizes science process and thinking skills, manifests science interest and gives students a basis for communicating effectively using science language and reasoning. Lab experiences will be conducted within a 5 period per week schedule. Successful completion of each Keystone Exam is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements.

**0421 Laboratory Biology (Keystone Exam Course)**  1.5 Credits 9<sup>th</sup> - 12<sup>th</sup>

Lab Biology uses concept-oriented, inquiry, and cooperative laboratory approaches to the study of life. It encompasses molecular, cellular, genetic, evolutionary, and ecological aspects of plant, animal, and microbial life. **The class meets as a double period on alternating days.** Students are selected by their present science instructors only based on performance in their current science and mathematics courses. In order to enroll in this course, students must have at least an 80% in Science 8 or Biology and be recommended by their current science teacher. Successful completion of each Keystone Exam is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements.

**0425 Keys to Biology and Chemistry** 1 Credit 10<sup>th</sup>  
(Not an approved NCAA course)

This course is designed to meet specific needs of all students who have taken Biology but were **not proficient** on the Keystone Biology Exam. During the first semester, this course will provide students with an in-depth review of Keystone Biology Concepts. Topics include macromolecules, bonding, properties of water, photosynthesis, and cellular respiration, and genetics. During the second semester, students will pursue a general study of science that covers the basics of chemistry and laboratory skills with a strong emphasis on relating chemistry to everyday situations. **Students will be required to retake the Keystone Biology Exam during the winter testing window in December or January.**

**0430 Laboratory Chemistry** 1.5 Credits 10<sup>th</sup> - 12<sup>th</sup>

**This course meets as a double period on alternating days.** Lab Chemistry is a general study of science that deals with the characteristics of elements and their compounds. The scientific principles of their combination and behavior under various conditions are investigated. In order to enroll in this course, students must have at least an 80% in Lab Biology or Chemistry Connections and teacher recommendation.

**0431 Chemistry Connections**

1 Credit

10<sup>th</sup> - 12<sup>th</sup>

This is a course for those students whose interest lies in a field outside of Science, and who have passed either Lab Biology (0421) or Biology (0420). It covers the basic principles of chemistry with an emphasis on applications to everyday situations and requires minimal mathematical computation. Laboratory experiences will fall within a 5-period per week schedule.

**0440 CIHS Laboratory Physics 1**

1.5 Credits (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

Physics is the study of the relationship between matter and energy. Course topics include describing motion and its causes, momentum, energy, and forces. It meets as a double period on alternating days and includes lab work and “hands-on” activities. It is an algebra-based approach to physics. It is an ideal course for students who are planning to attend college and it is designed to be equivalent to the first semester of physics in college. Students enrolled in this course have the option of earning college credit through CCBC simply by paying the tuition costs to CCBC through our College in High School program. It is recommended that the student have an 80% or better in the following courses: Lab Chemistry, Algebra I and Geometry.

**0442 CIHS Laboratory Physics 2**

1.5 Credits (weighted course)

12<sup>th</sup>

This course is a continuation of the topics studied in Lab Physics 1 or AP Physics 1. Course topics include electricity, magnetism, quantum mechanics, heat and thermodynamics, and other modern physics concepts. It meets as a double period on alternating days and includes lab work and “hands-on” activities. It is an algebra-based approach to physics. It is an ideal course for students who are planning to attend college and it is designed to be equivalent to the second semester of physics in college. Students enrolled in this course have the option of earning college credit through CCBC, **if they have already earned credit for either Lab Physics 1 or AP Physics 1 through CCBC**, and by paying the tuition costs to CCBC through our College in High School program. It is recommended that students have an 80% or better in one of the following courses: Lab Physics 1, or AP Physics 1.

**0455 CIHS AP Physics 1**

1.5 Credits (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

AP Physics 1 is the same course as Lab Physics 1 (please see above) but with extra responsibilities outside of the regular classroom. Students in AP Physics 1 will do all of the same things as students enrolled in Lab Physics 1, plus extra assignments in order to prepare for the AP Physics 1 exam and to meet the requirements of the College Board. It is still an algebra-based course and is ideal for students who are planning to attend college. Students also have the opportunity to earn college credit in two ways. First, just like the students in Lab Physics 1, they have the option of earning college credit through CCBC simply by paying the tuition costs to CCBC through our College in High School program. Secondly, students may take the AP Physics 1 Exam in May. It is recommended that the student have an 80% or better in the following courses: Lab Chemistry, Algebra I and Geometry. **While students are not required to take the AP exam, it is encouraged.**

**0457 CIHS AP Physics 2**

1.5 Credits (weighted course)

12<sup>th</sup>

AP Physics 2 is the same course as Lab Physics 2 (please see above) but with extra responsibilities outside of the regular classroom. Course topics include electricity, magnetism, quantum mechanics, heat and thermodynamics, and other modern physics concepts. Students in AP Physics 2 will do all of the same things as students enrolled in Lab Physics 2, plus extra assignments in order to prepare for the AP Physics 2 exam and to meet the requirements of the College Board. It is still an algebra-based course and is ideal for students who are planning to attend college. Students also have the opportunity to earn college credit in two ways. First, just like the students in Lab Physics 2, they have the option of earning college credit through CCBC, **if they have already earned credit for either Lab Physics 1 or AP Physics 1 through CCBC**, and by paying the tuition costs to CCBC through our College in High School program. Secondly, students may take the AP Physics 2 Exam in May. It is required that the students have an 80% or better in one of the following courses: Lab Physics 1, or AP Physics 1.

**While students are not required to take the AP exam, it is encouraged.**

**0441 Conceptual Physics**

1 Credit

11<sup>th</sup> - 12<sup>th</sup>

This will be a basic Physics course meeting five (5) periods per week and designed to teach the concepts of physics without the emphasis on mathematics. As the author, Paul Hewitt, of the text, *Conceptual Physics*, states, “This course takes the concept-before-computation approach to physics.” The course will explore our everyday environment and the nature of basic principles such as motion, forces, energy, matter, heat, sound, light, and waves.

**0449 AP Environmental Science**

1 Credit (weighted course)

11<sup>th</sup> – 12<sup>th</sup>

The Advanced Placement course in Environmental Science is taught at the first year college level and is designed to be equivalent to a one-semester introductory level college course in environmental science. The course will cover a variety of topics from biology, geology, chemistry, and geography as they relate to environmental science. The class meets 5 periods a week. To enroll in this course, it is required that students have at least an 80% average grade or better in Lab Biology and Lab Chemistry.

**While students are not required to take the AP exam, it is encouraged.**

**0450 Environmental Science**

1 Credit

11<sup>th</sup> - 12<sup>th</sup>

Environmental science course meets five periods per week and is designed to teach the concepts of environmental science and local ecosystems. This is a hands-on course and will explore wetlands, renewable and nonrenewable resources, environmental issues, agriculture and integrated pest management, at-risk species, energy flow within ecosystems and humans and the environment. Laboratory experiences will fall within the 5-period per week schedule.

**0451 CIHS AP Biology**

1.5 Credits (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

This course is taught at the first-year college level. Emphasis is placed on knowledge of the facts, principles, and processes of biology. Such fields as molecular biology, cytology, evolution, heredity, populations, zoology, and botany are rigorously explored. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills to deal critically with the field of Biology. **Prerequisite Courses: Lab Biology & Lab Chemistry. Students must have earned an 80% or better in both prerequisite courses and be recommended by their current science teacher in order to enroll in this course.** This course meets on alternating single and double periods according to the A/B schedule. **While students are not required to take the AP exam, it is encouraged.** College in the High School (CIHS) Biology is also offered to junior or senior students at Blackhawk as a means of earning 4 college Biology credits through Robert Morris University. (BIOL 1310 & BIOL 1315). Students are responsible for the tuition fee charged by the University for this option. The fee will be collected from students in September for students who choose to take the course for CIHS credit.

**0452 CIHS Chemistry**

1.5 Credit (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

College in the High School (CIHS) Chemistry is offered to junior or senior students at Blackhawk as a means of earning 4 college chemistry credits through Pitt (CHEM 0110). The content of this course is equivalent to a first semester introduction to general chemistry. Topics covered include Stoichiometry, Atomic and Molecular Structure, States of Matter, Periodic Trends, Bonding, Thermochemistry, and Solutions. Problem solving and laboratory experiences are a functional part of this course. Students are responsible for the tuition fee charged by the University for this option. The fee will be collected from students in September for students who choose to take the course for CIHS credit. Students wishing to earn college credit through Pitt must take 3 tests and a final exam administered by the University. In addition, students must do 5 lab experiments at the University throughout the year. Students are responsible for the tuition fee charged by the University for this option. **Prerequisites: At least a “B” average in Lab Chemistry. It is preferred that students would also have earned a “B” average or higher in Algebra II. A student who has not taken Algebra II must obtain special permission from the course instructor prior to enrolling.**

# AGRISCIENCE

**1210 Introduction to Agriculture, Food and Natural Resources** 1 Credit 9<sup>th</sup> - 10<sup>th</sup>

Introduction to Agriculture, Food, and Natural Resources is an introductory course designed to teach students about the world of agriculture, the pathways of study they may pursue, and the science, mathematics, reading, and writing components they will use throughout the CASE™ curriculum. Woven throughout the course are activities to develop and improve employability skills of students through practical applications. Students will explore career and post-secondary opportunities in each area of the course.

Students' experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning.

**1213 Plant Science** 1 Credit 10<sup>th</sup> - 12<sup>th</sup>

Principles of Agricultural Science – Plant (ASP) is a foundational level course where students study the production of plants while developing a grower's handbook. Areas of study include soils, hydroponics, plant anatomy and physiology, taxonomy, growing environments, sexual reproduction, asexual reproduction, insects and diseases, and production and marketing. Students will be in charge of growing a Poinsettia crop in the fall and bedding plants in the spring. **Concurrently enrolled or earned C or better in Introduction to Agriculture, Food and Natural Resources or Biology or teacher recommendation.**

**1214 Large Animal Science** 1 Credit 10<sup>th</sup> - 12<sup>th</sup>

Large Animal Science is a course where students study the production and care of large animal species such as cattle, sheep, hogs, horses, goats, poultry and rabbits while creating a care guide. Units of instruction will include feeding and nutrition, selection, housing, anatomy, marketing, and available careers etc. **Concurrently enrolled or earned C or better in Introduction to Agriculture, Food and Natural Resources or Biology or teacher recommendation.**

**1215 Small Animal Science** 1 Credit 10<sup>th</sup> - 12<sup>th</sup>  
(Not Offered 2022 - 2023)

Animal Science is a course where students study the production and care of small animal species such as dogs, cats, poultry, rabbits, reptiles, and birds while creating a care guide. Areas of study will include careers, anatomy, physiology, feeding and nutrition, breeding, and health care. We will also study grooming and general care of the animals. **Concurrently enrolled or earned C or better in Introduction to Agriculture, Food and Natural Resources or Biology or teacher recommendation.**

**1216 Food Science** 1 Credit 11<sup>th</sup> - 12<sup>th</sup>

Food Science is a challenging course where students will study the processes in Food Science. They will learn the basic chemistry behind the changes in food, nutrition, food preparation, food processing, and careers. This will be a hands on course that is focused on science and experiments. **Concurrently enrolled or earned C or better in Introduction to Agriculture, Food and Natural Resources or Biology or teacher recommendation.**

**1217 Landscape** 1<sup>st</sup> Semester (spring) .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course will include greenhouse application and landscape design. Students will use the school greenhouse to propagate plants. Students will learn the basics of landscape design and hardscaping and create and apply a landscape design around the school. This course is designed to take students through the identification, use and care of ornamental plants and shrubs around the school grounds. We will maintain many of the school flower beds. **Concurrently enrolled or earned C or better in Introduction to Agriculture, Food and Natural Resources or Biology or teacher recommendation.**

**1219 Equine Science** 2<sup>nd</sup> Semester (fall) .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course is a study of the principles and practices dealing with the Equine species. This class will include an introduction to the history of the horse, classifications of the different breeds, the anatomy and nutrition of the species, and the proper care and handling techniques. This will be a semester course. **Concurrently enrolled or earned C or better in Introduction to Agriculture, Food and Natural Resources or Biology or teacher recommendation.**

<b>Supervised Agriculture Experience</b> is an independent study course for full time agriculture students and is completed <b><u>outside of the normal school day.</u></b>	
<b>SAE I - 9<sup>th</sup></b>	Credit is based on a work experience project or a production enterprise. The student will be required to log his/her time and must complete a record book as well as a completed computer printout. <b>Must be enrolled in another Agriculture Class</b>
<b>SAE II - 10<sup>th</sup></b>	Ag Records II is an extension of Ag Records I. A personal analysis of records will be stressed. Students must also complete a Chapter FFA Degree-Application and Proficiency Award Application in this course. <b>Must be enrolled in another Agriculture Class.</b>
<b>SAE III-11<sup>th</sup></b>	Independent study completed by student under the supervision of the teacher. A personal analysis of records will be stressed. Students must also complete a Keystone FFA Degree-Application in this course. <b>Must be enrolled in another Agriculture Class.</b>
<b>SAE IV- 12<sup>th</sup></b>	Independent study completed by student under the supervision of the teacher. A personal analysis of records will be stressed. Students must also complete a Keystone FFA Degree-Application in this course. <b>Must be enrolled in another Agriculture Class.</b>

**Any student wishing to be considered a vocational student must meet the following requirements in grades 9 through 12:**

Grade 9	One (1)	Agriscience class
Grades 10-12	Three (3)	Agriscience classes, one of which may be SAE

**PLEASE NOTE:**

**All students will be required to take Biology or Lab Biology during their 9th grade year. Successful completion of Keystone Exams is a federal and local requirement; demonstrating proficiency is a pathway to meet state/local graduation requirements.**

# WORLD LANGUAGES

## FRENCH

**0611** French I 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course is an introduction to the language and culture of the Francophone (“French-speaking”) world. Students will acquire the basic vocabulary and grammatical structures needed for success in upper-level French courses. Our primary focus will be on learning to communicate in the present tense while simultaneously gaining an understanding of French culture. Students will practice these skills through speaking, reading, writing, and listening activities. **It is recommended that students wishing to take French have a "B" average in English courses.**

**0612** French II 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course expands upon the foundational vocabulary and grammar introduced in French I while introducing students to the historical and cultural elements of the Francophone world. Students will learn to speak in the present, past, imperfect, and future tenses. In addition, students will expand upon previously reviewed vocabulary and acquire new vocabulary. Students will practice these skills through speaking, reading, writing, and listening activities.

**0613** French III 1 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course is designed to strengthen language skills and prepare students to become more proficient both in conversational and written French. In addition, students will become more familiar with historical and cultural elements of the Francophone world. The primary focus will be to reinforce and strengthen previously covered grammatical concepts and vocabulary. In addition, students will learn to use the present subjunctive and conditional tenses. Students will practice these skills through speaking, reading, writing, and listening activities..

**0614** French IV 1 Credit 11<sup>th</sup> - 12<sup>th</sup>

This is an upper level course in which students will become proficient in advanced grammatical structures and vocabulary. In addition, students will learn to interpret and analyze literature in French. Students will solidify and refine their knowledge of all grammatical tenses and expand their vocabulary in French.

**0615** AP French Language and Culture 1 Credit (weighted course) 12<sup>th</sup>

This course is designed to further develop proficiency in listening comprehension, speaking, reading and writing and to prepare students to take the Advanced Placement Language Examination. A student must have four years of the target language in order to qualify for the AP course. This course is conducted almost exclusively in the French language, with minimal explanations in English, and students are expected to use the target language as much as possible. In this course, students will use authentic French materials to develop and hone their language skills through oral and written interactions, audio interpretations, and print materials.

**While students are not required to take the AP exam, it is encouraged.**



# GERMAN

**0621** German I 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

The first year of German seeks to develop a basic understanding of the language. The individual begins by learning everyday expressions then slowly acquires vocabulary imperative for short conversations. Gradually more emphasis is given on comprehension, speaking and writing skills. **It is recommended that students wishing to take German have a "B" average in English courses.**

**0622** German II 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

Second year German is a more intense study of all the basic skills with special emphasis on idioms, more detailed grammar and speaking. Classroom practice transfers emphasis from understanding to reading and mainly speaking.

**0623** German III 1 Credit 10<sup>th</sup> - 12<sup>th</sup>

Third year German concerns itself with the conversational aspect of the language. A review of the grammar is provided, as well as further study in that area. German culture and history is studied through the use of notes and study guides. An expansion of vocabulary and all basic language skills is included.

**0624** German IV 1 Credit 11<sup>th</sup> - 12<sup>th</sup>

The fourth year German course will be entirely conducted in German with a complete review of grammar. Dialogue between instructor-student and student-student set in different environments will be targeted, in conjunction with the reading of German newspapers and magazines and the viewing of German videos.

**0626** AP German 1 Credit (weighted course) 11<sup>th</sup> - 12<sup>th</sup>

The AP German Language course targets an equivalency of a collegiate course both in content and in the general challenge it presents to the student. A student must have four (4) years of the target language in order to qualify for the AP course.

Heavy emphasis will be placed on (in order) speaking, reading, and writing. Speaking; student having a very strong command of vocabulary and structure of the language through understanding a native speaker and speaking in a variety of situations. Reading; reading of short stories, internet articles, general newspaper and magazine articles. Writing; student accurately expressing opinions, thoughts and interpretations in writing. Content of the course to be determined mainly by the teacher and from input of the students. Topics governing current events, history, sports, modern and classical literature and music are to be included. Teaching tools include video and CDs, magazines and newspapers, and short stories from famous German authors (i.e. Brecht, Grass, Kafka). **While students are not required to take the AP exam, it is encouraged.**

# LATIN

**0631** Latin I 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

In Latin I, students will study the vocabulary and grammar of Latin as well as English words that have come from Latin. Students will be introduced to Roman life, culture, and mythology. Class activities focus on reading Latin stories and discussing them both in English and in Latin. **It is recommended that students taking Latin have at least a "B" average in English courses.**

**0632** Latin II 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

Latin II continues where Latin I left off, with a focus on Roman Britain and Alexandria, Egypt. Students will continue to review vocabulary, grammar, and English derivatives and well as Roman history, culture, and mythology. **In order to continue to Latin II, students must have at least a "C" average in Latin I.**

**0633** Latin III 1 credit 10<sup>th</sup> - 12<sup>th</sup>

Latin III completes the saga of Quintus and takes place in Ancient Rome. Students will continue their study of grammar, vocabulary and English derivatives while learning about the history and culture of the Romans. Students will finish the year by reading some authentic Latin texts.

**0634** Latin IV 1 Credit 11<sup>th</sup> - 12<sup>th</sup>

This year students will fully transition to reading actual Latin authors. Students will read both prose and poetry selections, and well as continue to solidify their mastery of Latin grammar and vocabulary. Some authors that will be read include Catullus, Ovid, Cicero, and Caesar.

**0635 AP Latin**

1 Credit (weighted course)

12<sup>th</sup>

AP Latin is composed of sections of Vergil's Aeneid and Julius Caesar's Gallic Wars. Students will focus on translation as well as grammar, meter, rhetoric, and vocabulary. We will also discuss the two stories and compare and contrast major themes and ideas.

**While students are not required to take the AP exam, it is encouraged.**

## SPANISH

**0641 Spanish I**

1 Credit

9<sup>th</sup> - 12<sup>th</sup>

This course will introduce and develop a basic understanding of and use of the Spanish language. The student will learn many expressions which can be helpful when traveling abroad and to many parts of our own country. Grammar and structure will be presented through reading, speaking, listening, and writing activities. Through the use of textbook activities, utilizing audio and video, students will be introduced to Spanish speakers in Spain, Mexico, the Caribbean and the USA. Notes on history and culture will be introduced throughout the year. **It is recommended that students taking Spanish have at least a "B" average in English courses.**

**0642 Spanish II**

1 Credit

9<sup>th</sup> - 12<sup>th</sup>

Second year Spanish is a continuation of the first year with a greater emphasis on content, vocabulary and speaking. New grammar and idioms will be introduced. Students will be encouraged to communicate with the teacher and classmates in Spanish through the use of textbook activities, audio and video presentations. Students will develop cultural understanding, reading and writing skills through passages in the text and supplemental materials. Their travel journey will continue through southern Spain, Valley of Mexico, Texas and the Andes Mountains. Students must have at least a "C" average in Spanish I.

**0643 Spanish III**

1 Credit

10<sup>th</sup> - 12<sup>th</sup>

The third year Spanish course will provide a review of previously taught grammar. Advanced grammar concepts will be presented along with extended reading and writing practice. A practical knowledge and use of Spanish is stressed, especially through conversation. Whether students are college-bound or not, three years of a language will prove to be of great value in tomorrow's job market. Most verb tenses will be covered by the end of the year. Vocabulary will be increased as well as audio skills via audio and video activities. Additional cultures will be included.

**0644 Spanish IV**

1 Credit

11<sup>th</sup> - 12<sup>th</sup>

In the fourth year of Spanish, the students will be expected to communicate with the teacher and classmates in Spanish. They will study additional grammar concepts and expand their vocabulary through structured conversations about specific topics. They will also continue the study of the Hispanic culture, literature, and the arts. Expressing the students' own thoughts and opinions, both written and oral, will be encouraged, aiming towards proficiency. Audio skills will be increased via audio and video activities.

**0647 AP Spanish Language**

1 Credit (weighted course)

12<sup>th</sup>

This course is designed to further develop proficiency in listening comprehension, speaking, reading and writing and to prepare students to take the Advanced Placement Language Examination. The course is conducted primarily in Spanish with English explanations and students are encouraged to use the target language as well. Reading materials are drawn from text and authentic literary works. Composition skills are enhanced by frequent writing assignments on many different topics. Conversations, discussions, oral reports and similar activities ensure practice in the spoken language. **While students are not required to take the AP exam, it is encouraged.**

# BUSINESS, COMPUTERS, AND INFORMATION TECHNOLOGY

## SUGGESTED SEQUENCE FOR BUSINESS/COMPUTER COURSES

Courses may be taken at any time, as long as the grade-level restrictions and prerequisites as indicated below with each course description are followed.

### BUSINESS COMPUTER ELECTIVES

**0710 Financial Literacy** .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

This one-semester financial literacy, computer-oriented class is recommended for students, particularly those in 11<sup>th</sup> or 12<sup>th</sup> grade interested in learning to make good financial decisions. Students will be introduced to an understanding of personal income, money management, credit, savings, and investing. Topics include income and careers, banking procedures, financial planning, credit management, insurance, and budgeting.

**0711 Entrepreneurship**  .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

Have you ever dreamed of owning your own business? Would you like to be the decision maker and the boss? Students will learn the basics of business ownership starting with a concept and then developing that idea in an actual business plan. Some of the topics covered include forms of business ownership, site location, promoting the product or service, and employee relations. Learn what it takes to be a successful entrepreneur. **\*Recommended Prerequisite - As this class relies heavily on the use of Microsoft, it is HIGHLY recommended that 0780 Microsoft Applications be successfully completed prior to taking this course.**

**0740 Accounting I**  1 Credit 10<sup>th</sup> - 12<sup>th</sup>

This full-year course is designed for students with a variety of business career goals including accounting, finance, marketing, and information systems, which all require an accounting course in college. The content focuses on the financial analysis for a sole proprietorship and corporation. Using manual accounting forms and Microsoft Excel, students will develop an understanding of accounting information systems and build a strong foundation in basic procedures. Projects and accounting simulations will be completed to assess understanding.

**0741 Accounting II**  1 Credit 11<sup>th</sup> - 12<sup>th</sup>

This full-year course is designed for students with determined career objectives in business administration and accounting. Students will develop knowledge and skills in payroll accounting, adjustments and valuations, financial statement analysis, plant assets and depreciation, and inventory costing. Advanced projects and accounting simulations will be completed to assess understanding.

**Prerequisite: Accounting I with a grade of C or above.**

**0751 Web Page Design**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Web Page Design is a one semester course that offers an introduction to the creation of lively, attractive, and dynamic Web Pages. Students will gain and understanding of the HTML computer language and will learn the fundamentals and advanced features of Web Page Design using the Dreamweaver software. Adobe Dreamweaver is known as the standard in visual Web Page authoring in the business world. Students will be acquainted with the proper procedures to create a Web site suitable for coursework, professional, and personal use with all the bells and whistles. No experience necessary.

**0780 Microsoft Applications**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Do you struggle with that research paper your English teacher just assigned? Does the thought of creating a PowerPoint for a class project leave you feeling confused? This computer course is designed to introduce students to the basic concepts of computer operations, storage, operating systems and software. Learn introductory concepts utilizing Microsoft Office applications such as PowerPoint, Excel, Word, and Publisher. After completing this course students will have the skills required to pursue a higher-level computer course, such as Advanced Microsoft Applications.



College in the High School (CIHS) Advanced Microsoft Applications is an in-depth one-semester course using the most current Microsoft Office software. Students have the ability to earn 3 college credits through CCBC (CIST 100), a fee of \$150 is required. Advanced applications in Word, Excel, PowerPoint, Access, and Publisher are covered, going beyond the fundamentals. Students will learn and appreciate how the various applications can complement, and be compatible, with one another. This course will be invaluable to the student now and for the remainder of their high school and college careers. Students **MUST** be proficient in the basic use of Microsoft Applications. *Prerequisite: 0780 Microsoft Applications*

## INFORMATION TECHNOLOGY

The Information Technology program is an intensive 4 semester curriculum intended for students who wish to pursue a career as a network administrator or network engineer. **Students must have Business Department approval to take Information Technology I and must earn a “B” or better to advance to the next level.**

### SUGGESTED SEQUENCE FOR INFORMATION TECHNOLOGY COURSES

11 <sup>th</sup> - 12 <sup>th</sup> Information Technology I and II
12 <sup>th</sup> Information Technology III and IV – taught as an independent course

**Students must have a recommendation from the Business Department to enroll in Information Technology I**

**1060** Information Technology I



.5 Credit (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

The Information Technology I class is structured around the A+ certification exam. Students will study computer components, PC troubleshooting, and Microsoft Windows configuration and setup.

**1061** Information Technology II



.5 Credit (weighted course)

11<sup>th</sup> - 12<sup>th</sup>

The Information Technology II class is structured around the Network+ certification exam. The class will focus on networking terminology, protocols, LANS, WANS, Ethernet, Internet Protocol (IP) addressing, design and documentation of basic network cabling, and network to network communications.

**1062** Information Technology III



.5 Credit (weighted course)

12<sup>th</sup>

**\*\*This course can only be taken as an Independent Study. Course will be provided in its entirety in an online format, with minimal teacher facilitation.\*\***

The Information Technology III class is structured around the Security+ certification exam which focuses on network security. Students will explore enterprise hardware and software packages that are common in a networked environment along with the security issues surrounding them. Topics include security basics, attacks, securing network infrastructure, security policies, web security, and disaster recovery.

**1063** Information Technology IV



.5 Credit (weighted course)

12<sup>th</sup>

**\*\*This course can only be taken as an Independent Study. Course will be provided in its entirety in an online format, without teacher facilitation.\*\***

The Information IV class is structured around the Linux+ certification exam. Students will gain hands on experience with the Linux operating system and how it fits into a network infrastructure. Topics include Linux system administration, shell commands, software packages, network configuration, and security.

# COMPUTER SCIENCE ELECTIVES

## SUGGESTED SEQUENCE FOR COMPUTER SCIENCE COURSES

9 <sup>th</sup> - 10 <sup>th</sup> Programming
10 <sup>th</sup> - 11 <sup>th</sup> Computer Science I and II
11 <sup>th</sup> - 12 <sup>th</sup> AP Computer Science

**0520** Programming  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

This one-semester course is designed for the beginning student who would like to learn the fundamentals of programming a computer. Problem-solving and logical thinking skills will be taught. The language(s) of the course will be Visual Basic / Python, which is used by many businesses.

**Pre-requisite: Algebra I or equivalent Algebra skills.**

**0527** Computer Science I  .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This one-semester course is designed for the student who would like to continue his or her study of programming by using the Java language. This language is now widely used in colleges, industry, software development, and web page design. Students who plan on entering a computer science, mathematical, scientific, or engineering field should take this course.

**Pre-requisite: Algebra II or equivalent Algebra skills. It is highly recommended students complete Programming I prior to enrollment.**

**0533** Computer Science II  .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This one-semester advanced course is a continuation of Computer Science I and extends the study of the Java language. Many large programming projects will be assigned involving decisions, iterations, arrays, and class structure. Students who complete this course are prepared for the AP Computer Science course or for a college programming course.

**Pre-requisite: 0527 Computer Science I**

**0535** AP Computer Science  1 Credit (weighted course) 11<sup>th</sup> - 12<sup>th</sup>

This full-year, challenging Advanced Placement course is intended for students who have completed both Computer Science I **and** Computer Science II, with at least a B average. Students will continue the study of the Java language and will complete several large programming projects. Topics studied will include arrays, lists, searches, sorts, inheritance, polymorphism, recursion, and more. Students who plan on entering a computer science, mathematical, scientific, or engineering field are encouraged to take this course. **While students are not required to take the AP exam, it is strongly encouraged.**

**Pre-requisite: 0533 Computer Science II**

# MUSIC

**0814 Musicianship I** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Musicianship is a full-year course, which is designed to introduce young musicians to the science of music. Knowledge of basic rhythms and notes on the staff is suggested for this course. This class is a prerequisite to AP Music Theory. This is also a Level 1 Music Academy Course.

**0820 Concert Choir** 1 Credit 9<sup>th</sup> - 12<sup>th</sup>  
**0822 Concert Choir (One Semester, or all year A or B day)** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Students who participate in Concert Choir will expand upon their musicianship through challenging repertoire, advanced sight-singing and vocal training. Students participate in four (4) concerts per year in uniform (provided).

**0830 Concert Band** 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

Students participate in three (3) concerts per year. Depending on opportunity, students may be involved in additional concerts.

The following instruments permitted in Concert Band are as follows: Piccolo/Flute, Oboe, Clarinet, Bass Clarinet, Saxophone (Alto, Tenor, and Bari), Trumpet, French Horn, Trombone, Baritone, Tuba, Percussion. (Other instruments may be approved by the Band Director)


\*It is highly recommended that students enroll in either Concert or Jazz band when participating in Marching Band\*

**0854 Instrumental Lessons** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

This semester course (offered both first and second semester) allows instrumental students at Blackhawk High School the opportunity to study both individually and in ensembles. Enrollment in the class would be open to students in grades 9 - 12 who would like to further their ability on their individual instrument.

**0844 Music Technology I**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Music Technology is a class designed to study and use computers and musical instruments to create music. MIDI technology sequencers, sound modules, and music keyboards will be used to arrange, compose, sequence, and print music. Basic skill on an instrument and a desire to be creative are required, but no previous keyboard or composing experience is necessary.

**0845 Music Technology II**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Music Technology II is a class designed to continue the study and use computers and musical instruments to create music. MIDI technology, sequencers, sound modules, and music keyboards will be used to arrange, compose, sequence, and print music in a more advanced manner. : The Music Technology curriculum will include: basic music theory instruction and review, transcribing existing compositions, programming sampled sounds, multi-track recording, using MIDI, arranging, composing, and ear training. Students will use theory, sequencing, and notation software. Basic skill on an instrument and a desire to be creative are required, but no previous keyboard or composing experience is necessary. **Pre-requisite is Music Technology I**

**0846 Jazz Band** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Students participate in three (3) concerts per year. Depending on opportunity, students may be involved in additional concerts.

The following instruments permitted in Jazz Band are as follows: Saxophone (Alto, Tenor, and Bari), Trumpet, Trombone, Guitar, Bass, Piano, Drum set, Mallet Percussion, Percussion. (Other instruments may be approved by the Band Director)

\*It is highly recommended that students enroll in either Concert or Jazz band when participating in Marching Band\*

**0852 String Orchestra** 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

String Orchestra is for both students with previous experience playing a string instrument and those wishing to start. This course gives students the opportunity to improve techniques unique to orchestra and string music and prepares them for public performance. Students should be aware that participation in school concerts as well as outside of school performances is required and graded. There will also be required after school rehearsals.



# ART

**Note:** Material costs for project work in courses outlined below continues to rise at a very rapid rate. The cost of materials for projects undertaken by students beyond the required project work must be borne by the student. Any questions regarding the above should be referred to the high school principal before registration.

**0910 Color and Design** 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course will invite students to develop production skills in both the two and three-dimensional visual arts. Students will work with basic concepts in the following areas: drawing, calligraphy, painting, sculpture, ceramics, printmaking, graphic design. Participants will address issues that arise in the production process and do research into the historical and cultural contributions of the visual arts in our global society. The elements and principles of design will be explored in depth, to develop critical thinking skills and problem solving through instructor demonstrations, student production in class, library media classes, and class critiques, both oral and written.

**0911 Drawing** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Students will be involved in basic drawing skills during the first semester. This course will be all two-dimensional work in learning to use the basic shapes, textures and shadows in drawing. Students will explore space, shape, and form through gesture, contour, and modeled drawing. Work will be done in various media: pencil, pen and ink, ballpoint pens and charcoal. The second half of this course will be a continuation of basic drawing skills with emphasis on independent work.

**0912 Advanced Drawing** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Advanced drawing is a freehand drawing course based upon observation and analysis of the underlying structure and form of man-made and natural objects. Studio production will be a vehicle by which the students can develop an awareness of processes as a means of research and invention and as a way to inquire into the historical impact of drawing on mankind throughout the world. Students will engage in the process of criticism and gain a sense of the complexity of philosophical issues that are generated from the contemplation of the nature of drawing as a fine art. **Pre-requisite: Drawing 0911 and teacher approval**

**0913 Ceramics** .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course will introduce the student to the basics of ceramic construction, including coil, pinch, and slab hand building techniques. Students will be introduced to a variety of methods and materials for building and decorating their ceramic artwork. Good craftsmanship will be stressed, and students must be comfortable getting their hands dirty.

**0914 Advanced Ceramics**  .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course will examine clay concepts in three-dimensional design, surface treatment (including glaze techniques), scale, and mixed media. Students will develop a mastery of the potter's wheel. Studio production will be a vehicle by which the students can inquire into the historical impact of ceramics on mankind throughout the world. Students will engage in the process of criticism, and gain a sense of the complexity of philosophical issues that are generated from the contemplation of the nature of ceramics as both a fine art and a craft. Students will also exercise greater responsibility for the creation of glazes, recycling of clay, and overall maintenance of the ceramics studio. Ceramics II students are encouraged to develop their ideas and skills through the creation of a series of related functional pieces. **Pre-requisite: Grade of B or better in Ceramics 0913**

**0916 Sculpture**  .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

Course Description: This course provides a hands-on approach for understanding contemporary sculpture. Students will have the opportunity to work with wood, plaster, clay, wire, and glass. Assemblage, Carving, Casting and Eco Art are the 4 main creative problem-solving techniques explored through sculpture media.



**0917 Fibers/Fabrics**

.5 Credit

10<sup>th</sup> - 12<sup>th</sup>

In this course, students will experiment with a range of processes, including knotting, weaving, silk painting, batik and tie-dye through the science of dying and fiber preparation. Developing artists are challenged to explore a language of material through the use of traditional processes in nontraditional applications. Students will use freehand drawing and transfer methods to develop ideas upon which observation, critical thinking and problem solving are emphasized. Students will be encouraged to investigate contemporary designs in fiber art while developing technical skills and aesthetic sensibilities for necessary creative agility as well. Studio production will be a vehicle by which the students can develop an awareness of process as a means of research and invention and as a way to inquire into the historical impact of fibers on our culture.

**0918 Advanced Fibers/Fabrics**

.5 credit

10<sup>th</sup> - 12<sup>th</sup>

This course is designed to reinforce the students' knowledge of fiber arts and crafts as viable visual art forms. Students will expand their understanding of the processes explored in Fibers I with emphasis placed on more comprehensive projects. An introduction to the art of jewelry and bead making in association with the concept of wearable artwork will be included in this course. **Prerequisite: Fiber/Fabrics I – 0917**

**0920 Painting**

.5 Credit

11<sup>th</sup> - 12<sup>th</sup>

This studio course is designed to introduce students to the various styles, techniques, media, artists and art movements associated with painting. Emphasis will be placed on composition and color theory and will include, but not be limited to watercolor, acrylic, pastel, and oil painting. Students will develop an understanding of the differences between mediums and the vehicles used to manipulate them. The students will be encouraged to pursue themes, ideas, concepts and aesthetics and participate in individual and collaborative art making processes, discussions and techniques. ***Strong drawing ability (sketchbook review by teacher) or Drawing I is required.***

**0925 Advanced Painting**

.5 Credit

11<sup>th</sup> - 12<sup>th</sup>

Painting II students will expand their depth of understanding of the various styles, techniques, artists and movements explored in Painting. The following styles and movements will be explored in class: Realism, Impressionism, Cubism, Abstract Expressionism, Fauvism, Minimalism and Mixed Media. **Prerequisite: Painting I – 0920 and teacher approval.**

**0927 Graphic Design**

.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

This is an introductory course that focuses on skills needed to structure and organize complex visual communications in digital and print environments. Emphasis on conceptual development, structural organization of information, and interplay of form and verbal content to effectively communicate ideas. Students will learn to think critically, make aesthetic judgments, and become familiar Adobe Photoshop CS6.

**0929 Advanced Graphic Design**

.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

This course is to be taken after getting a "C" or better in digital graphic design. This course is exploration of graphic design through the integration of typography and imagery from planning, conceptualization, and creation, through management of content for a variety of projects. Major themes include: contrast and fusion of graphic form, text/image collage, hierarchy, grid systems, and extended layouts. Critiques and discussions of professional work including traditional structures of books, catalogs, magazines, and brochures.

**0960 AP Studio 2-Design**

1 Credit (weighted course)

12<sup>th</sup>

AP Studio 2-Design is intended for students who are interested in the serious study of art. The major objective of the course is to help students produce an art portfolio required for admission to university art programs and art schools. This course is open to any senior who has completed four semesters of studio art. The course will follow the College Board's AP Studio Format which is the completion of an extensive portfolio. Students may submit their portfolio for AP and College credit. In addition to extensive in-class studio work in drawing, painting, design or ceramics, students will select a particular visual topic of interest. This will lead to a related body of work focusing on a process of investigation, growth and discovery. Students will need to allow extra time in their schedules as a significant amount of outside work will be required. In order to complete the rigorous AP requirements of 24 pieces of work, students must have exhibited proficiency in an individual studio class. An individualized program will be designed around the student's area of interest. The portfolio will be submitted as a slide portfolio for review by the board. **Prerequisite: 4 semesters of Studio Art (Drawing, Ceramics, Painting, Fibers, and Color and Design) and teacher recommendation. While students are not required to take the AP exam, it is encouraged.**

# TECHNOLOGY & ENGINEERING EDUCATION

## Note to Students and Parents:

The costs of materials for project work in courses outlined below for this department are rising at a very rapid rate. The cost of materials for required student projects in this department will be borne by the school district; however, the costs of materials for projects voluntarily undertaken by students beyond the required work projects will be borne by the student. Any questions regarding the above should be referred to the school principal before registration.

If you want to learn more about any classes in the Technology Education Department please visit: <http://teched.bsd.k12.pa.us>

### 1007 AP Computer Science Principles



1 Credit (weighted course)

9<sup>th</sup> - 12<sup>th</sup>

This course is an introduction to robotics and computer science principles. Students will build and program robots using the Snap programming language, learn some of the most powerful ideas of computer science, demonstrate creativity, and discuss the social implications of computing, thinking deeply about how they can be personally active in promoting and reducing the possible harms. The Computer Science Principles byDesign™ course was developed to introduce students to fundamental computer science principles as well as prepare students to take the AP Computer Science Principles Exam. **While students are not required to take the AP exam, it is encouraged.**

### 1008 CIHS Electricity



.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

This course introduces the students to electricity, the basis of electronics, with the study of direct current, switching and control, magnetism, basic electrical instruments, alternating current, and applications to basic devices. College in the High School credit is available through Pittsburgh Technical College (PTC). **Prerequisite: Algebra 1 or 1A**

### 1009 How Stuff Works



.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

How Stuff Works is an exploratory course which allows students to apply hands-on skills using a variety of tools and equipment. Projects will focus on solving problems relating to studies in energy technologies. Upon completion of this course students will have attained engineering skills that will be useful in applied science, engineering and physics courses.

Studies and projects include (but are not limited to): Steam Turbine, Solar Powered Vehicle, Liquid-Fuel Powered Rocketry, CO2 Dragster, Mousetrap Powered Boats, and Robotic programming and production. **How Stuff Works is a prerequisite for Applied Engineering and Technology.**

### 1011 Mechanical Engineering



.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

Intro to Mechanical Engineering is an extension of the How Stuff Works course and is highly focused on projects. Like the How Stuff Works course, students learn problem-solving skills needed to produce projects and models that are functional and efficient. Upon completion of this course students will have attained engineering skills that will be useful in applied science, engineering and physics courses. Studies and projects include (but are not limited to): Small Engine Troubleshooting and Maintenance, Flight Endurance, Pneumatic/Hydraulic Design and modeling, Boat Hull design, and Robotic System Control. **Mechanical Engineering is a prerequisite for Applied Engineering and Technology.**

### 1012 Applied Engineering and Technology



1 Credit

10<sup>th</sup> - 12<sup>th</sup>

Applied Engineering and Technology is an advanced exploration of previous studies from either: How Stuff Works and/or Intro to Mechanical Engineering. This course will focus on problem solving activities which will require the students to use creativity and critical thinking skills. Students will exercise these skills by building projects that solve a given problem. Through trial and error, students will design, test, evaluate and then re-design their projects to better solve the given challenge. Projects include (but are not limited to): Small Engine Disassembly, CO2 Powered Flight Endurance, Rube Goldberg Challenge, Solid Fuel Rocket design and implementation, and Transportation Challenge. **In order to be eligible, students must have a minimum of a "C" in How Stuff Works and/or Intro to Mechanical Engineering.**

### 1013 Digital Photography



.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

Students will learn fundamental photographic skills including digital capture, manipulation, and output. For the processing and enhancement of digital photographs, students will learn the basics of Photoshop. These digital skills and tools for the making of photographs will be taught within the context of the aesthetics of photography.

**1015 Digital Video and Photography**

.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

This course is to be taken after receiving a "C" or better in digital photography. Students will focus on advanced photo techniques such as exposure, aperture, ISO speed, and lighting to name a few. Along with working on advance photography techniques students will be introduced to basic principles of digital video production and provides a foundation for understanding the aesthetic and technical concerns associated with digital filmmaking using digital video editing software. Students examine cinematic structure and strategies in digital storytelling. Students will work collaboratively as well as individually.

**1022 Advanced Material Processing**

1 Credit

10<sup>th</sup> - 12<sup>th</sup>

This laboratory-based course is an introduction to material properties and product design. Design engineering requires knowledge of the selection, properties, uses, and impacts of materials choices and processing methods. A process of research, design, creation, use and assessment of products will be used. This full year course will consist of two major projects that will determine the student's overall grade. The first project, one semester in length, will be a mass production activity where students will design and manufacture a product. The second project, one semester in length, will be a material processing assignment. This project will require each student to design and produce their own individual project. **In order to be eligible, students must have a minimum of a "C" in Wood Material Processing or Metal Material Processing.**

**1023 Home Improvement**

.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

This one semester course is designed to introduce students to the technology and techniques of home remodeling, renovation, and maintenance. Projects will include: room planning and remodeling, furniture repurposing, exploration in plumbing and electrical, and basic home repair.

**1024 CIHS Drafting and Design**

.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

In this course the students will Analyze and interpret technical designs and learn appropriate drafting terminology. Student will apply standard sketching, drafting, and problem solving techniques to solve engineering graphic problems. Emphasis will be placed on in class projects using manual drafting, freehand sketching, and computer aided drafting (CAD). Projects will include (but not limited to) technical drawings, Computer Aided Drawings, packaging design, and cardboard chairs. Software used includes, but not limited to, AutoCAD, Inventor and Revit. College in the High School credit is available through Pittsburgh Technical College (PTC).

**1025 3D Printing and Prototyping**

.5 Credit

9<sup>th</sup> - 12<sup>th</sup>

Join the revolution and learn the fundamentals of rapid prototyping. Whether you want to be an engineer, designer, artist, or just someone who thinks 3D printing is cool this class is for you. In this project based class you will learn how to make professional-quality prototypes, complex models and attractive pieces of art. Students will review the fundamentals and theory behind rapid prototyping methods, the different types of methods and materials, applications of rapid prototyping technology, and the use of advanced CAD modeling within rapid prototyping. Projects include but are not limited to, reverse engineering of a product, product improvements, jewelry design, technology accessories, model creation, and a needs based artifact creation.

**1032 CIHS Architectural Drawing**

1 Credit

10<sup>th</sup> - 12<sup>th</sup>

This is a one-year course designed for students who have completed **Drafting and Design** and would like to specialize in designing and drawing architectural drawings necessary for the construction of a residence. Elements of the course include architectural styles, area planning, structural detailing, pictorial rendering, building specifications, and cost analysis. This course will focus on the use of Autodesk Architectural Desktop to complete all of the drawings listed. Students will also work in groups to construct scale models of their individual designs. College in the High School credit is available through Pittsburgh Technical College (PTC).

**1033 CIHS 3D Modeling**

.5 Credit

10<sup>th</sup> - 12<sup>th</sup>

This course is designed for students that have completed CADD I (1035) and CADD II (1036) with a "C" or higher. This course will allow students to explore different elements of design and materials. Students will develop solid modeling techniques and skills using the Autodesk Inventor program. College in the High School credit is available through Pittsburgh Technical College (PTC).

**1034 3D Animation**  .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course is designed for students that have completed 3D Modeling (1033) with a “C” or higher. Students will enhance their design skills using programs such as Autodesk Inventor and 3ds Max. This course will allow students to develop advanced solid modeling and animation techniques. Students will develop a product and create complete presentations using solid modeling and animation techniques.

**1035 Computer Aided Drafting and Design (CADD I)**  .5 Credit 10<sup>th</sup> – 12<sup>th</sup>

This course involves the use of computer software and hardware as applied to mechanical design and drafting. Students learn to manipulate basic geometric entities (points, lines, and arcs) to create 2-D and 3-D models. Experiences dealing with dimensioning level/layer surfaces and planes are also explored. In order to be eligible, students must have a minimum of a “C” in **Drafting and Design**.

**1036 CIHS Computer Aided Drafting & Design II (CADD II)**  .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

This course is designed to explore advanced aspects of CADD, including advanced drawing, design, and editing. Students will learn how to draw advanced 3-dimensional Orthographic Drawings including sectional, auxiliary, and assembly drawings. Students will also learn how to draw advanced 3-Dimensional Problems: Finally students will use their own creativity to design various mechanical objects to solve a specific problem: In order to be eligible, students must have a minimum of a “C” in CADD I. College in the High School credit is available through Pittsburgh Technical College (PTC) after completion of **BOTH** CADD I and CADD II.

**1040 TSA S.T.E.A.M. & Leadership**  .5 or 1 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course is designed to challenge students in the areas of Leadership, Science, Technology, Engineering, and Mathematics to include: leadership strategies, organizational management, transportation technology, construction technology, biotechnology 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.

**1038 Technology Student Association I (1st Semester only)**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Technology Student Association (TSA) I is a capstone course in the technology education program. This course is designed for students that have completed at least two courses in Blackhawk’s Technology Education Program which they earned a C or better as a final grade **AND HAVE RECEIVED TEACHER APPROVAL** . Students can also be admitted to this course if: **they have been a Blackhawk TSA member for at least one year, AND THEY HAVE RECEIVED TEACHER APPROVAL**. Finally, students can be admitted to enroll in this course if they have taken the TSA 9 course and have earned a grade of a C or better. Students will participate in TSA competitive event activities designed to prepare them for regional, state and possibly national TSA competitions. Activities that students will prepare for, but are not limited to, during this course are: Career Comparisons, Prepared Presentation, PA Biomedical Essay, PA Safety Illustration, Structural Engineering, Promotional Graphics etc... It is strongly recommended that any student aspiring to become a Blackhawk TSA officer should take this course due to the leadership activities that will be covered during this course as well. Students that enroll in this course will be strongly encouraged to run for a Blackhawk TSA Chapter Office.

**1039 Technology Student Association II (2nd Semester only)**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

Technology Student Association (TSA) II is a capstone course in the technology education program. This course is designed for students that have completed at least two courses in Blackhawk’s Technology Education Program which they earned a C or better as a final grade **AND HAVE RECEIVED TEACHER APPROVAL** . Students can be admitted to this course if: **they have been a Blackhawk TSA member for at least one year, AND THEY HAVE RECEIVED TEACHER APPROVAL**. Finally, students can be admitted to enroll in this course if they have taken the TSA 9 course and have earned a grade of a C or better. Students will participate in student selected TSA competitive events in order to prepare them for regional, state and possibly national TSA competitions. **TSA I is not a prerequisite for this course but is strongly recommended**. All students will be expected to attend the regional and state TSA conference’s as part the requirements for this course

**1041 Wood Material Processing**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course is designed for students wanting to develop skills using a variety machines that are basic to the wood manufacturing industry. Students will have an opportunity to work with a variety of woods and understand how they are used in the manufacturing industry. Wood Material Processing is designed to offer a generic and broad view of the way humans change raw wood materials into a finished product(s). The students will see the significance of resources, processes, and impacts of wood materials used by mankind. The emphasis of this course is placed on the processes by which products (or projects) are developed. Some of the projects that students will make in this course include a board game, video game/DVD shelf and a mirror. **Wood Material Processing qualifies as a prerequisite for Advanced Material Processing (1022)**

**1043 Metal Material Processing**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course is designed for students wanting to develop skills using machines basic to the metal manufacturing industry. Students will have an opportunity to learn the basics of soldering, propane torch work, oxygen-acetylene torch work, arc welding, mig welding, and brazing. Students will also learn basic sheet metal, forging and foundry processes. Some of the projects that students will make in this course include a tool tray, boot scraper and mailbox sign. **Metal Material Processing qualifies as a prerequisite for Advanced Material Processing (1022)**

**1037 Architectural CADD**  .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

This course is designed to explore the use of CADD in Architecture, with emphasis on the use of Autodesk Revit. All students enrolling in this course must have taken Architectural and Civil drafting (1032) or be enrolled in Architectural and Civil Drafting in the same year as Architectural CADD..

**1045 Technology Education Laboratory Assistantship** .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

Students that have taken: How Stuff Works, Intro to Technical Design, or Wood/Metal Material Processing courses or are currently enrolled in any of them, have the opportunity to attain credit for basic facilities maintenance and assistance to/for the instructor. Selection of students will be very limited and admittance is determined by instructor approval.

**1055 Geospatial Technology I**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course is an introduction to geographic information system(G.I.S.) using ArcMap® software. This course will provide an overview of G.I.S. and careers related to this field. Emphasis will be placed on the areas of map making, data collection, file management, map digitizing and Internet Usage. Students will be working on project teams and will need prior basic computer knowledge. Upon completion of this course students will be able to formally make a G.I.S. map.

**1056 Geospatial Technology II**  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

This course is an advanced skill of geographic information system(G.I.S.) ArcMap® software. Emphasis of this course will be placed in the following areas: Geodatabases, Map Digitizing, Georeferencing, Spatial Adjustment, Geocoding, Map Labels and Annotation, Map Hyper Linking, and customizing ArcGIS. Students will be working on project teams and will need prior basic computer knowledge. In order to be eligible, students must have a minimum of a “C” in Geospatial Technology I.

**1051 Independent Study** .5 or 1 Credit 11<sup>th</sup> - 12<sup>th</sup>

Independent opportunities are available to students who wish to pursue technology education classes beyond existing courses. Specific permission and sign-up must be acquired by the student from a technology education instructor. Availability will be dependent upon course offerings for the upcoming school year.

**Note:** Independent opportunities may be available for those students who wish to pursue any of the technology education classes beyond structured courses. Specific permission and sign-up must be accomplished with the individual instructor.



# Certified Production Technician (CPT)



The Manufacturing Skill Standards Council (MSSC) is an industry-led training, assessment and certification system focused on the industry-wide core skills and knowledge needed by the nation’s production workers. The nationwide MSSC System, based upon federally-endorsed standards, offers both entry-level and incumbent workers the opportunity to demonstrate that they have mastered the skills increasingly needed in the high-growth, technology-intensive jobs of the 21st century.

The MSSC System awards “Certified Production Technician AE (CPTAE)” certificates to individuals who pass any or all of its four Production modules: Safety; Quality Practices & Measurement; Manufacturing Processes & Production and Maintenance Awareness. Applicable to all sectors of manufacturing, the MSSC’s “20/20 Vision” to assess at least 20 percent of the front-line production and material handling workforces within 20 years—a strategy for providing industry with a future pipeline of skilled workers.

MSSC offers industry a new set of tools to ensure that both entering and incumbent workers are flexible, easily trainable, and highly motivated knowledge workers able to keep pace with technological change—the “Industrial Athlete of the Future.” CPT is the only certification in manufacturing which has been accredited by the American National Standards Institute under ISO standard 17024. The CPTAE credential sets the gold standard in our nation’s factories. MSSC benefits to manufacturers include:

- A new ISO standard in certification companies can use as a common practice throughout their global operations and supply chains
- A pipeline of skilled workers by embedding MSSC certification training into schools
- Decreased recruitment costs by providing job candidates with industry-recognized credentials
- Elimination of remedial training costs by providing well prepared workers
- Increased ROI for training by targeting it against the gaps identified by the MSSC diagnostic tool
- An aid to attracting, motivating and retaining qualified employees

The National Skill Standards Board formally recognized MSSC as the “Voluntary Partnership” for manufacturing in 1998 and officially endorsed the MSSC’s industry-led, nationally validated standards in 2001. The development of those standards involved 4000 front-line workers, 700 companies, leading industrial unions, 350 subject matter experts and a public-private investment of over \$9.5 million.

Since that time, MSSC has developed, validated, piloted and deployed all the tools of a comprehensive system: updated standards, on-line and instructor-led courses, computer-based simulation training, textbooks, instructor certification training, assessment center certification, a national registry, assessments, credentials, and diagnostic tools for employers. Companies may use these tools themselves or work through their local community colleges and/or high schools. The key work activities against which MSSC trains and assesses workers is attached, together with a list of testimonials.

<b>First Module - Safety (.25 credit independent study or can be taken as part of the Wood Material Processing course)</b>	<b>Second Module - Quality Practices &amp; Measurement (.25 credit independent study or can be taken as part of the Wood Material Processing course)</b>
<ol style="list-style-type: none"> <li>1. Introduction to Advanced Manufacturing</li> <li>2. Industry 4.0 and IIoT</li> <li>3. Safety Responsibilities</li> <li>4. Practicing Safety in the Workplace</li> <li>5. Types of PPE</li> <li>6. Hazardous Materials Standards</li> <li>7. Hazardous Material Handling and Storage</li> <li>8. Machine Safety</li> <li>9. Equipment Safety</li> <li>10. Material Handling and Robot Safety</li> <li>11. Safety Inspections and Analysis</li> <li>12. Work Area Safety</li> <li>13. Training</li> <li>14. Fire and Electrical Safety</li> <li>15. Emergency and Accident Response</li> <li>16. Introduction to Communication</li> <li>17. Receiving Communication</li> <li>18. Communication Methods</li> <li>19. Communicating Feedback</li> <li>20. Introduction to Teams</li> <li>21. Production Team Communication</li> <li>22. Team Ideation</li> <li>23. Workplace Behavior</li> </ol>	<ol style="list-style-type: none"> <li>1. Introduction to Quality</li> <li>2. Dimensional Measurement</li> <li>3. Measurement Conversion</li> <li>4. Introduction to Print Reading</li> <li>5. Multiview Drawings</li> <li>6. Blueprint Dimensions and Notes</li> <li>7. Manufacturing Drawings and Scales</li> <li>8. Welding Symbols</li> <li>9. Tolerancing</li> <li>10. Caliper Measurement</li> <li>11. Micrometer Measurement</li> <li>12. Indicator Measurement</li> <li>13. Quality Inspections and Audits</li> <li>14. Introduction to Quality Tools</li> <li>15. Preventive and Corrective Action</li> <li>16. Basic Statistical Concepts</li> <li>17. Introduction to Control Chart</li> </ol> <p>Modules 3 &amp; 4 Continued on Next Page</p>

<b>Third Module - Manufacturing Process &amp; Production</b> <b>(.25 credit independent study or can be taken as part of the Metal Material Processing course)</b>	<b>Fourth Module - Maintenance Awareness</b> <b>(.25 credit independent study or can be taken as part of the Metal Material Processing course)</b>
<ol style="list-style-type: none"> <li>1. Principles of Manufacturing Automation</li> <li>2. Industry 4.0 Technologies</li> <li>3. Advanced Manufacturing Materials</li> <li>4. Advanced Manufacturing Processes</li> <li>5. Mechanical Power</li> <li>6. Basic Mechanical Elements</li> <li>7. Power Efficiency</li> <li>8. Hand Tools</li> <li>9. Band Saw Operation</li> <li>10. Introduction to the Drill Press</li> <li>11. Machine Operations 1</li> <li>12. Machine Operations 2</li> <li>13. Introduction to CNC Machining</li> <li>14. CNC Workspace</li> <li>15. CNC Programming and Operation</li> <li>16. Automated System Operations</li> <li>17. Machine Adjustments</li> <li>18. Machine Troubleshooting</li> <li>19. Manufacturing Metrics</li> <li>20. Production Planning and Workflow</li> <li>21. Introduction to Lean Manufacturing</li> <li>22. Lean Manufacturing Organization</li> <li>23. Lean Manufacturing Operations</li> <li>24. Inventory Management</li> <li>25. Production Control</li> <li>26. Material Quality Control</li> </ol>	<ol style="list-style-type: none"> <li>1. Total Productive Maintenance (TPM)</li> <li>2. Mechanical Power Transmission</li> <li>3. Gear Drives</li> <li>4. Belt Drives</li> <li>5. Chain Drives</li> <li>6. Oil Lubrication</li> <li>7. Grease Lubrication</li> <li>8. Introduction to Fluid Power</li> <li>9. Pneumatic Power</li> <li>10. Basic Cylinder Circuits</li> <li>11. Hydraulic Power</li> <li>12. Basic Hydraulic Cylinder Circuits</li> <li>13. Fluid Power Speed Control</li> <li>14. Hydraulic Filtration</li> <li>15. Basic Electrical Circuits</li> <li>16. Electrical Voltage and Current Concepts</li> <li>17. Electrical Resistance Measurement</li> <li>18. Power in Electrical Circuits</li> <li>19. Control Logic Circuits</li> <li>20. Electrical Control Diagrams</li> <li>21. Relay Control Circuits</li> <li>22. Automation Sequence Circuits</li> <li>23. Introduction to Electronic Sensors</li> <li>24. Programmable Controller Operation</li> <li>25. Basic PLC Programming</li> <li>26. PLC Motor Control</li> <li>27. Basic Robot Operation</li> <li>28. Introduction to Welding</li> <li>29. Welding Operations</li> <li>30. Weld Types</li> </ol>



# FAMILY AND CONSUMER SCIENCES

**1109** Intro to Foods .5 Credit 9<sup>th</sup> - 10<sup>th</sup>

Step up from the culinary skills you learned in related arts. Practice more in-depth food preparation techniques with a wider range of recipes and work with many different kitchen appliances to help cultivate independent food preparation skills.

**1111** Fascinating Foods .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

Join us to develop your culinary skills and discover how food can be fun as well as fulfilling! It will be delicious! You will gain basic cooking skills from measuring techniques to recipe creation. Apply food knowledge and skills in a lab setting through a variety of hands-on lab activities. Food preparation is a life skill, but can lead to a career! Plan for your future!

**1113** World of Foods .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

In the World of Foods course we will take a journey to a variety of exotic places and discover their delectable cuisines. Find out how the geography, climate, and culture influence these cuisines. The areas of study will be determined by the class. What are you interested in knowing more about? What foods would you like to try? Previous classes have studied China, Italy, France, Germany, Spain, and Japan. Come join the adventure!

**1131** Child Development I .5 Credit 10<sup>th</sup> - 12<sup>th</sup>

Will you become a parent one day? Do you babysit? Will you choose a career working with children? Do you realize that one of the most important jobs is that of parenting, yet many have no formal training for this vital role? Students in the Child Development I course will explore the world of the child from prenatal development through the pre-school years in the areas of physical, intellectual, social, and emotional development. Students in this course have the opportunity to complete the Baby Think It Over” project or an alternative project to help gain the insight into the care involved in raising a child.

**1132** Child Development II .5 Credit 11<sup>th</sup> - 12<sup>th</sup>

**(Pre-requisite: Child Development I (1131) with a "C" average.)**

Child Development II will put to practical use much of the information learned in Child Development I through a hands-on preschool experience. Students will have an opportunity to prepare for and work with preschool students, ages 3 1/2 – 5 years old.

**1141** Interior and Fashion Design  .5 Credit 9<sup>th</sup> - 12<sup>th</sup>

In Interior Design learn how the elements and principles of design help you look, respond, and create a home that is warm and inviting. By drawing a floor plan, arranging furniture, and creating a color and décor style board, you will experience designing a room. Apply the skills you learn in interior design and open the door to your future home design. **Note:** Courses completed in Family & Consumer Sciences may be included in the two (2) Arts and Humanities credits required for graduation.



# PHYSICAL EDUCATION

All students must elect two (2) semester courses each year from among the following physical education semester courses. Be sure that you select one (1) from each semester grouping. All students are required to pass a swimming class in order to graduate.

**Fitness 4 Life** .25 Credit 9<sup>th</sup> - 10<sup>th</sup>

1311 First Semester  
1351 Second Semester

Physical activity is critical to the development and maintenance of good health. The goal of Fitness 4 Life is to develop physically educated individuals who have the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity. Fitness 4 Life includes instruction and participation in various physical fitness activities, individual lifetime activities and sports, and team sports. Students will be challenged in a variety of different methods to foster one's overall physical, mental, social, and emotional well-being.

## **11th & 12th Grade Physical Education - Combination of activities of Team Sports, Lifetime Activities, and Individual Fitness and Conditioning.**

1319 First Semester .25 Credit 11<sup>th</sup> - 12<sup>th</sup>  
1359 Second Semester

### **Team Sports**

This class involves instruction and participation in various team sport activities and team fitness games including but not limited to football, soccer, speedball, floor hockey, basketball, tennis, softball, volleyball, handball, lacrosse, capture the flag, pirate ball, castle ball, and various others. Students will be instructed about various tournament structures involving team sports and competitions including round robin format, ladder format, single elimination format, double elimination format, and various others. Students will be responsible for creating, organizing, and running specific tournament strategies within the various units covered in this class.

### **Lifetime Activities**

This class involves instruction and participation in lifetime activities and fitness activities including but not limited to badminton, pickleball, ping-pong, tennis, indoor tennis, bocce, capture the flag, castle ball, Olympic power walking, archery, wall climbing, bowling, golfing, hiking, biking, jogging, orienteering, group challenges, cooperative games and various others. Students will be instructed about various techniques within each activity to encourage lifetime participation in the aforementioned activities. Students will also be involved in the development of new activities by creating activities via a group setting.

### **Individual Fitness**

Physical activity is critical to the development and maintenance of good health. The goal of Individual Fitness is to develop physically educated individuals who have the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity. Individual Fitness includes instruction and participation in various fitness activities including weight training, resistance training, plyometric training, cardiovascular training, flexibility training, fitness circuits, electronic fitness techniques, and various others. Students will have the opportunity to set their own fitness goals while working towards reaching these goals by given time frames. Students will be challenged in a variety of different methods to foster one's overall physical, mental, social, and emotional well-being. This class will be held primarily in the fitness center and weight room areas.

**Intro to Swimming** .25 Credit 9<sup>th</sup> - 12<sup>th</sup>

1314 First Semester  
1315 Second Semester

Those students who have a fear/phobia of water should be enrolled in Introduction to Swimming. Students enrolled in this course will be introduced to basic skills including safety & security in and around the pool, floating and gliding techniques, rhythmic breathing exercises, and treading water. Students will also slowly graduate from the shallow end to the deep end as the year progresses. Students will also be introduced to various recreational swimming strokes including the elementary backstroke and sidestroke.

**Beginning Swimming** .25 Credit 9<sup>th</sup> - 12<sup>th</sup>

**1316** First Semester  
**1356** Second Semester

This course is designed to promote the safety of students in and around the water, as well as teach students the basic fundamental skills/mechanics of four swimming strokes including the front crawl/freestyle, back crawl/backstroke, elementary backstroke, and sidestroke. Students will also improve their cardiovascular endurance, muscular strength, muscular endurance, and body composition through various activities including treading water, swimming stroke development, games, and aerobic/anaerobic fitness activities.

**Swimming 4 Life** .25 Credit 10<sup>th</sup> - 12<sup>th</sup>

**1317** First Semester  
**1357** Second Semester

This course can only be taken after a student has successfully completed beginning swimming. Swimming 4 Life emphasizes a number of concepts including the review of correct techniques in the front crawl, back crawl, side stroke, and elementary back stroke. Students will also be introduced to additional swimming strokes including the breast stroke and the butterfly stroke. Students will also have the opportunity to participate in various types of fitness aquatic activities including fitness circuits, water polo, volleyball, diving, relay races, and other anaerobic fitness games.

**Beginning Dance Class** .25 Credit 9<sup>th</sup> - 12<sup>th</sup>

**1341** First Semester  
**1342** Second Semester

The beginning Dance Class is for students who have minimal to no experience in dance training. Students will be introduced to the basic components, basic dance technique, and vocabulary of ballet and jazz dance techniques. Examples of these include Plié, tendu, rond de jambe, grand battement, sauté, and pirouettes. The aforementioned dance techniques combined with proper body alignment and strength, will allow students to perform barre, center, and across the floor work, along with basic dance combinations. Additionally, students will be introduced to dance history and French dance terminology. Students are responsible for acquiring appropriate dance attire which consists of a leotard, tights, and ballet slippers. A certified dance instructor and a physical education teacher will instruct the class.

**Advanced Dance Class** .25 Credit 9<sup>th</sup> - 12<sup>th</sup>

**1345** First Semester  
**1346** Second Semester

The Advanced Dance Class is for students who have a minimum of one year of dance training. Students must also obtain permission from a Physical Education teacher in order to register for this class. Participants in this class must have mastered the beginning dance curriculum, have a basic knowledge of dance vocabulary, as well as understand and utilize proper body alignment and strength. Students will be required to perform advanced dance vocabulary, such as fouettes, sission, and rond de jombe en l'air. Students will be instructed in tap, jazz, and ballet during this class. Similarly to the beginning dance class, students must have appropriate dance attire to participate which includes a leotard, tights, and ballet slippers. A certified dance instructor and a physical education teacher will instruct the class.

**Lifeguarding** .25 Credit 11<sup>th</sup> - 12<sup>th</sup>

**1320** First Semester  
**1360** Second Semester

This is an American Red Cross course that certifies students in first aid, CPR, and lifeguarding. It is possible to pass this course but not meet the qualifications for Red Cross certification. Students taking lifeguarding must stay with the program for the entire semester. Students may also choose this course for lifeguard recertification. There is a fee assessed by the American Red Cross to receive certification.

**Conditioning**

.5 Credit

**1301** First Semester10<sup>th</sup> - 12<sup>th</sup>**1302** Second Semester9<sup>th</sup> - 11<sup>th</sup>

The primary emphasis in this course is to provide instruction in muscular development. The purpose is to build muscular strength through the use of a variety of exercises to include the use of free weights, weight machines, calisthenics, exercise bands, cardiorespiratory activities, partner assisted and partner resistant activities. The course will also incorporate injury prevention techniques through flexibility and stretching activities. The primary area of instruction for this course is the High School Weight Room, though all available areas of the High School Campus will be utilized, including the high school pool.

**Adaptive Physical Education**

.25 Credit

9<sup>th</sup> - 12<sup>th</sup>**1321** First Semester**1361** Second Semester

Adaptive Physical Education is designed for students who have difficulty with regular physical education. **Students involved in this course must have the recommendation of a physical education teacher.**

# HEALTH AND SAFETY/DRIVER EDUCATION

All 9th grade students must enroll in Health - Course 1365.

## 1365 Health & Wellness Education

.5 Credit

9<sup>th</sup>

The purpose of this course is to create a health literate individual who is a confident, life-long learner, who is also capable of making thoughtful decisions that will improve his/her total well-being. Students will also learn to evaluate their own level of health while learning about the core concepts of health and the importance of improving and maintaining positive, healthy attitudes and habits. Students will be involved in a plethora of classroom activities that encompass topics including first aid, nutrition, physical activity, cancer, mental health, tobacco, alcohol, drugs, human sexuality, as well as many others.

## Driver Education

.25 Credit

10<sup>th</sup>

1366 First Semester

Sophomores who will be sixteen by February 1<sup>st</sup>.

1367 Second Semester

Sophomores who will be sixteen after February 1<sup>st</sup> and Freshmen who will be sixteen by May 31<sup>st</sup>.

Driver Education is a one-semester course that meets alternating days of the week. Emphasis is on promoting proper driving attitudes, understanding Pennsylvania driving laws and regulations, DUI laws, and driving maneuvers. Assistance is provided in securing a driver's permit and license. This class is a pre-requisite for In-the-Car Driving, which is available to students during study halls or summer vacation. A permit or license is required for In-the-Car Driving. Students must successfully complete both Driver Education Theory (1366) and In-the-Car Driving to qualify for an insurance deduction and receive a senior license at age 17 1/2. **A student who wishes to retake this course must have teacher recommendation.**

\* **Please Note** – The Road Skills Test can be taken at the high school after Behind the Wheel Driving has been successfully completed.

**\*\*There is a lab fee for Behind the Wheel Driving.**

## 1368 Introduction to Safety and CDL

.5 Credit

11<sup>th</sup> - 12<sup>th</sup>

This course is a ½ credit course offered for students hoping to prepare for a Class A commercial driver's license. The course introduces students to *the Federal Motor Carrier Safety Regulations* and industry standards required for operating commercial motor vehicles hauling interstate commerce. Student will be introduced to the required areas of study to obtain a commercial Class A learners permit including driving doubles and triples, tankers, and hazardous materials. In addition, students will receive knowledge of material handling, behavioral safety, electrical safety, fire prevention, environmental safety, and hazardous emergency evacuation. Through this course, students will also be certified in First-Aid/CPR/AED.

# SPECIAL INFORMATION FOR CAREER AND TECHNOLOGY STUDENTS

The Beaver County Career & Technical Center (BCCTC) is an off-campus addition offering training in occupational, vocational and technical programs. This training will develop skills and attitudes that may lead to employment or further education after high school.

1. This is a two-year training program during the student’s junior and senior year. The students will spend half a day at the BCCTC and the remainder of the day at Blackhawk High School where they are enrolled in courses required for graduation.
2. The BCCTC student will graduate at his/her home school with a regular Blackhawk Diploma: additionally, the student will also receive a certificate from the BCCTC, showing hours in training and the skills that have been developed.
3. There are 17 programs offered at the BCCTC. Students of all ability levels are eligible to attend.
4. Applications are required and need to be completed online by April 1<sup>st</sup>.
5. If a student is accepted to the BCCTC and has to repeat a required course during their junior year, a schedule conflict may arise whereby the student would not be able to attend the BCCTC. In such cases, students must attend summer school to make up any deficient courses prior to attending the BCCTC.
6. Students may be eligible for post-secondary credits through state and private articulation agreements. More information can be accessed through the website at bcctc.org
7. The Cosmetology program is the only program at BCCTC that requires a student to begin as a 10<sup>th</sup> grader. This is necessary in order to ensure that students have sufficient time to accumulate the 1250 hours needed for certification as mandated by the Pennsylvania State Board of Cosmetology. **Students who begin the Cosmetology program as a sophomore must meet with their counselor to complete a graduation plan.**
8. All students attending the BCCTC are transported to and from Blackhawk High School (via school bus). AM BCCTC students will return for lunch and PM BCCTC students will eat lunch (10:52 AM-11:22 AM) prior to leaving.
9. The PM bus returns to Blackhawk at 2:10 P.M., before the end of the school day. Students may register for AM BCCTC or PM BCCTC. In some cases, enrollment availability per program may be limited.  
The BCCTC counselor (Mr. Yuhaniak) will advise each student during registration.

## 1400 A.M. BCCTC



Students will attend the morning session at Beaver County Career and Technology Center. Students must report to the BCCTC homeroom for attendance in the high school auditorium lobby and to board the bus.

## 1402 P.M. BCCTC



Students will attend the afternoon session at Beaver County Career and Technology Center. Students will eat lunch in the Gold cafeteria. Students will board the bus at 11:20 A.M.

### **BCCTC Registration Requirements per Grade**

SUBJECT	10 <sup>TH</sup> GRADE (special circumstance)	11 <sup>TH</sup> GRADE	12 <sup>TH</sup> GRADE	CREDITS BY SUBJECT
ENGLISH	English 10/CP 10	Eng.11/CP/ AP	Eng.12/CP/AP	4 credits required
SOCIAL STUDIES	American Government	World Cultures	Social Studies Electives (2)	4 credits required
MATH	<b>Teacher recommendation</b>	<b>Teacher recommendation</b>	<b>Teacher recommendation</b>	<b>4 credits required*</b>
SCIENCE	Teacher recommendation	BCCTC Equivalency	BCCTC Equivalency	3 credits required**
P.E.	2 semesters	2 semesters	2 semesters	2 credits required
REQUIRED COURSES	Drivers Ed. (10 <sup>th</sup> ) Health (9 <sup>th</sup> )			1.25 credits required
ELECTIVES	3.0 credits BCCTC	3.0 credits BCCTC	3.0 credits BCCTC	6.0 credits required

**BCCTC students may need to enroll in a Math course taught at BCCTC to meet Blackhawk graduation requirements.**

\*\*4 year colleges and universities recommend at least 2 years of a Lab Science for admissions.

\*\*\***See Mr. Yuhaniak to find out if you should sign up for A.M. or P.M. BCCTC**

## BCCTC Course Summaries

### **Automotive Technology** CIP 47.0604

Program provides a systems approach to all aspects of automobile and light truck maintenance and repair. Emphasis is on engine repair/performance, steering and suspension, and brake systems. Seniors may receive the PA Safety Inspection Certification.

#### **Related Occupations**

Service Station Manager    Automotive Salesman  
Automotive Technicians    Service Writer                      Parts Counter Technician

### **Business Information Systems** CIP 52.1201

Prepares students to operate/utilize computer software for solving business related problems. The computer lab has the most current software, PC hardware, notebook computers, PDA's, printer, scanners, and digital cameras.

#### **Related Occupations**

Spreadsheet Analyst            Desktop Publisher            Word Proc. Supervisor  
Database Admin.    Multimedia Designer            Website Designer

### **Carpentry** CIP 46.0201

Students will learn layout, fabrication, assembly, installation and repair to structures. Instruction in power tools and hand tools and equipment used in frame construction will be given.

#### **Related Occupations**

Carpenters            Job Supervisors            Cabinet Maker            Roofer

### **Collision Repair Technology** CIP 47.0603

Prepares students for entry level employment in the Auto Body field. Training involves safety, mig-welding, plasma cutting, using torches, body/ fender repair, hand/power tools/jacks.

#### **Related Occupations**

Collision Repair Technician            Adjuster Service Mgmt.  
Sheet Metal Worker            Refinishing/Custom Refinishing

### **Commercial Art**    CIP 50.0402

Students are taught basic skills and development of vocabulary and techniques. This class is geared for advertising artists, computer graphics, air brush, illustration, lettering, drawing, fashion, painting, typography, and desktop publishing.

#### **Related Occupations**

Silkscreen Artist    Designer            Multi-Media Animator  
Signage            Illustrators            Cartoonist

### **Cosmetology** CIP 12.0401

This is a three-year program designed to train students in the beautification of hair, skin, and nails. Facials and massaging are also taught. All salon functions are taught in preparation for State Board Licensing upon graduation.

#### **Related Occupations**

Manicurist            Beauty School Instructor    Hair Stylist  
State Board Inspector            Salon Owner            Vocational Instructor

## Culinary Arts CIP 12.0508

Culinary Arts students learn to cook gourmet meals, wait on tables, and the proper storage of food. They also learn the proper cleaning techniques needed to maintain a safe and sanitary kitchen. The BCCTC has an operational restaurant where students can practice their food service skills.

### *Related Occupations*

Waiter/Waitress      Food Sales      Chef/Cook  
Kitchen Inspector Baker

## Electrical Occupations CIP 46.0399

Students receive a broad background in residential, commercial, and industrial wiring. Instruction for proper use of specialty tools is provided.

### *Related Occupations*

Linesman      Wiring specialist Residential electrician  
Commercial/Industrial electrician      Cable technicians

## Graphic Arts & Printing CIP 10.0399

In Graphic Arts & Printing students will learn Graphic Design, Photography, Screen Printing, and Offset Printing. They create products like business cards, senior portraits, class t-shirts, and brochures.

### *Related Occupations*

Graphic Designer Photographer      Offset Press Operator  
Bindery Work      Screen Printer      Digital Press Operator

## Greenhouse/Landscaping CIP 01.0601

Students grow and sell a variety of plants, flowers, and vegetables in the greenhouse. They also landscape the CTC grounds using tractors and mowers while completing landscaping projects. The FFA Club is available for students to join/participate.

### *Related Occupations*

Turf chemical application Floral design      Greenhouse labor  
Garden center sales      Equipment sales Landscaping/landscape design

## Health Occupations CIP 51.0899

Students completing the Nurse Aide Program are eligible to take the PA Nurse Aide Competency exam listed on the PA Nurse Aide Registry. Students receive 105 hours of clinical experience. They may also take the Home Care Certification Exam.

### *Related Occupations*

Nurse Aide      Home Care Aide  
Registered Nurse Dental Assistant      Clinical Technologist LPN

## HVAC-R CIP 47.0201

A technician installs, services, and repairs equipment used to control circulation, moisture and purity of air. **Some of the skills a student will be able to perform are sheet metal fabrication, electrical controls, circuitry, piping, soldering/brazing, gas heating systems, oil heating systems, air conditioning, heat pump technology, psychometrics and blueprint reading.**

### *Related Occupations*

Heating, Ventilation, Air Conditioning and Refrigeration Mechanic  
Bldg. Maintenance      Appliance Technician      General Maintenance Contractor

## **Logistics & Materials Management CIP 52.0203**

Provides practical experience in receiving, shipping, handling, recording, and storing of supplies and materials for all departments of the technical school. Distribution, logistics and transportation are taught.

### ***Related Occupations***

Shipping/Receiving      Forklift Operator   Sales Representative      Warehouse Mgr.  
Inventory Specialist      Marketing Manager

## **Machine Tool Technology CIP 48.0501**

This program includes machine tool programming/operation, trade theory, and blue print reading in a state-of-the-art machine shop. Higher achieving students have been awarded machinists apprenticeships.

### ***Related Occupations***

Assembler/Inspector      Millwright      Tool & Die Maker      Machinist  
CNC operator      Machine Repair

## **Masonry/Bricklaying CIP 46.0101**

Masons are individuals who lay building materials to construct or repair walls, fireplaces, stonework, concrete, and block and brick structures. This program provides the student with skills and knowledge for entry-level employment.

### ***Related Occupations***

Bricklayer      Stonemason      Cement Finisher   Laborer  
Construction Supervisor      Union Bricklayer

## **Veterinary Assistant CIP 51.0808**

Upon completion of the program, graduates will be able to work in animal hospitals, animal clinics, kennels, doggie daycare facilities, grooming facilities, mobile vet services, animal shelters, and laboratories. Topics to be covered include basic first aid, medical terminology professional and ethical standards of Veterinary medicine, handling and restraint, animal anatomy, diseases and treatments, and various related studies.

### ***Related Occupations***

Animal Caretaker   Veterinary Hospital Technician      Veterinarian Technician  
Veterinary Technologist      Animal Lab Technician

## **Welding CIP 48.0508**

Instructs students in all aspects of fusing metal together by the use of heat and fluxing materials. Instruction is given in the use/maintenance/repair of welding equipment. Blue-print reading is also taught throughout the two years.

### ***Related Occupations***

Nuclear Welding Burner      Ship Builder  
Fitter      Ironworker      Pipefitter



# INDIVIDUALIZED INSTRUCTION

The following classes are designed for those Learning Support students, as assigned by their teacher. Students in these classes will follow the courses of study, as outlined in their Individual Education Plans (IEP). **Students must consult their teacher before selecting courses from this section.**

SRA Reading  
SRA English  
Math Skills  
Transition 9<sup>th</sup> and 10<sup>th</sup>  
Transition 11<sup>th</sup> and 12<sup>th</sup>

All full year classes will carry a 1-credit value. All semester classes will carry a .5 credit value.



## PRIDE & TRANSITION



TS (Transition Skills) class is a course designed for students to help prepare them for life after high school. It is designed to increase self-esteem and social relationships, build problem-solving and decision-making skills and enhance the students' ability to make realistic decisions about careers and living independently in the community.

**PRIDE** is an innovative program that embraces, supports, and challenges our students with exceptional needs.

# GIFTED SUPPORT

Gifted support students in grades 9-12 will be scheduled into advanced or accelerated classes based on individual need as determined by each student's GIEP team. A student's academic potential, scholastic record and level of independent learning will be considered as the student moves through the curriculum. Opportunities for enrichment, cultural development, competitive activities, and various other educational developments will supplement the normal curriculum as deemed necessary by the GIEP.

The following courses are designed to develop upper level communication skills required in advanced courses that may be a part of the student's GIEP.

- 0106** Honors English 9
- 0206** Honors American History 9
- 0116** Honors English 10

# E O E

The Blackhawk School District is an equal opportunity educational institution and will not discriminate on the basis of race, color, national origin, sex and handicap in its activities, programs or employment practices as required by Title IV, Title IX and Section 504.

For more information regarding civil rights or grievance procedures, contact Nate DiBenedetto, Business Manager, Title IX coordinator and Section 504 coordinator, at:

500 Blackhawk Rd.,  
Beaver Falls, PA. 15010  
(724-846-6600).

For information regarding services, activities and facilities that are accessible to and usable by handicapped people, contact the Business Manager.