

# KARNS CITY SENIOR HIGH CURRICULUM GUIDE

2025-2026



1446 Kittanning Pike  
Karns City, PA 16041  
724-756-2030  
<https://www.kcasdk12.org>

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## INTRODUCTION

The Karns City Area School District is committed to excellence and providing students with academically challenging courses and a wide variety of extracurricular activities to prepare them for the twenty-first century. A dedicated faculty, administration, and staff strive to maintain high standards. With that in mind, this guide is designed to provide parents and their student with an overview of the programs, curriculum, assessments, and guidelines for graduation at Karns City High School.

If students schedule challenging courses, develop good study habits, and attend school on a consistent basis, they improve their chances of performing at the proficient level on any standardized assessment administered at Karns City. Please keep these factors in mind as you review and select the courses offered this school year.

The course selection and scheduling process need to be the shared responsibility of the students, parents, teachers, and counselors. It is vital that these significant adults work together to plan an effective educational program for the student. Since the choice of educational programs has implications for post high school education and eventual career choices, careful planning is required.

The **School Counselor** is available to assist the student, parents, and teachers in developing an appropriate educational program to meet the needs of the student. **Parents** should support the student in the course selection process by discussing alternatives with the student and by helping the student analyze individual interests, needs, and goals. **Teachers** are available to discuss course offerings with the student in an effort to provide an understanding of the many options that are available. The **student** is encouraged to seek teacher recommendations before enrolling in some courses to ensure that prerequisites are met and that placement in the course is appropriate for the individual student. On the following pages, information and general descriptions are provided about the courses that are available for scheduling. A student should choose courses that provide the knowledge and skills necessary for moving forward on his or her path toward current educational and career plan choices.

After scheduling, keep this curriculum guide available for future reference.

# DIRECTORY

## Administrative Personnel

Superintendent: Dr. Eric Ritzert	Telephone: 724-756-0521 Ext. 1021
Principal (7-9): Mrs. Brenda Knoll	Telephone: 724-756-2030 Ext. 1019
Principal (10-12): Dr. Michael Stimac	Telephone: 724-756-2030 Ext. 1023

## Guidance Department

School Counselor (7-9): Miss Allyson Riley	Telephone: 724-756-7510 Ext. 1017
School Counselor (10-12): Mr. John Bowser	Telephone: 724-756-7510 Ext. 1018
Guidance Secretary: Mrs. Robin Stuchell	Telephone: 724-756-7510 Ext. 1025

## Special Education

Director of Special Education: Mrs. Jennifer Jamison	Telephone: 724-756-2030 Ext. 1022
School Psychologist: Mrs. April Christy	Telephone: 724-756-7510 Ext. 1044

## Other District Personnel

Athletic Director: Mr. Christopher Bellis	Telephone: 724-756-2030 Ext. 1034
Director of IT: Mr. Sean Edwards	Telephone: 724-756-2030 Ext. 1048
Software Engineer: Mr. Michael Cichra	Telephone: 724-756-2030 Ext. 1035
Systems Engineer: Mr. Derrick Norris	Telephone: 724-756-2030 Ext. 1028

## NON-DISCRIMINATION

*The Karns City Area School District does not discriminate on the basis of age, race, color, national or ethnic origin, sex or handicap in employment or in the administration of any of its educational programs and activities in accordance with applicable federal statutes and regulations. Inquiries should be directed to the Board Secretary who can be reached at Karns City Area School District Administration Office, 1446 Kittanning Pike, Karns City, PA 16041. Phone: 724-756-0521.*

## GRADUATION REQUIREMENTS

The Pennsylvania Department of Education's Chapter 4 regulations established minimum graduation requirements. Listed below are the State **credit\*** requirements to be earned in grades 9 through 12. Karns City's School Board Directors, as allowed by law, have set more stringent graduation requirements for Karns City students, which are also listed below.

SUBJECTS	KARNS CITY	PENNSYLVANIA
English	4 credits	4 credits
Social Studies	4 credits	3 credits
Mathematics	3 credits	3 credits
Science	3 credits	3 credits
**Arts and/or Humanities	***	2 credits
Health & Phys. Ed.	2.5 credits	1 credit
***Career Readiness	.50 credit	----
Driver Education	.50 credit	----
Humanities	.50 credit	----
Electives	6 credits	5 credits
	Total 24.00 credits	Total 21.00 credits

\*Credit - A Carnegie unit of credit is a standard measure of the quantity of work completed in subject areas. 1 credit equals 120 hours of classroom instruction, approximately 40 minutes/day, 180 days/year. Please know that the minimum requirements and the standards to be met by each course are set by the Pennsylvania Department of Education. As college courses do not meet the time requirements or align with the PDE established standards, college courses may not be substituted for the required Karns City coursework. \*\* Arts or Humanities: "Arts" can be described as Visual Arts, Music, Dance, Theater, Film Studies, Practical Arts and Crafts. "Humanities" can be subjects that embrace literature, languages, history, philosophy, or additional courses in English and Social Studies. Karns City satisfies this requirement by offering electives in Art and Music, Humanities, Family Consumer Science, Foreign Languages, and STEM and requiring one elective credit to be in Humanities. \*\*\*Beginning with the class of 2021, students are required to have .5 credit of Career Readiness as part of the Pennsylvania Career and Work Standards Chapter 339.

.Students will begin their 9<sup>th</sup> grade year with the next math class in the progression. (Please refer to page 26 for the math progression explanation).

**A requirement for all courses is regular attendance in accordance with the district attendance policy. Students are responsible for meeting the graduation requirements.**

## TEST PERFORMANCE REQUIREMENTS FOR GRADUATION

All students graduating from Karns City are required to demonstrate that they have met the Pennsylvania State Standards by achieving a proficient or advanced level rating on the Keystone Exam. If a student scores below those levels, he/she can meet Pennsylvania Graduation Requirements by satisfying one of the following graduation pathways under Act 158: Keystone Composite Pathway, CTE Concentrator, Alternative Assessment, Evidence-Based Pathway, Individualized Education Plan, or Waiver. More information regarding Act 158 Pathways to Graduation can be found on the District's website under the "Student" tab. Students who fail to meet proficiency will be highly encouraged to retake each exam on which they scored basic or below.

## PATHWAYS to GRADUATION

In addition to grade-based and credit-based graduation requirements, every student in Pennsylvania must meet at least one Pathway to Graduation, per the Department of Education. A detailed description of each pathway can be found at [www.kcasdk12.org](http://www.kcasdk12.org) > “Students” > “Pennsylvania Pathways to Graduation.” Throughout a high school student’s academic career at Karns City, they will meet regularly with the School Counselors and the administration to discuss which graduation pathways they are satisfying.

## BUTLER COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL REQUIREMENTS

The Butler County Area Vocational Technical School provides a curriculum option to students who have completed the tenth, eleventh, and/or twelfth grade course requirements. Course offerings are designed for students interested in learning a skill or acquiring technical knowledge needed for a future occupation or further technical or trade school training. Please refer to the course descriptions beginning on page 36.

### Guidelines for a student to schedule a program at the Vo-Tech include:

- A student **must be passing** all of his/her courses at Karns City High School
- A student **must not** have any violations of the attendance policy at Karns City High School
- A student must have a discipline record free of bus behavior violations
- A student enrolled in a “Cyber Charter School” is not eligible to attend the Vo-Tech

Typically, programs are three years, but a student may attend the Vo-Tech for just two years or one year. Once enrolled in a program, he/she must complete that year. A student can earn three elective credits for each year he/she attends the Vo-Tech toward the twenty-three credits required for graduation.

## STUDY LOAD

**Every student must schedule at least 6.50 credits each year.** Students may choose to schedule more credits, and should avoid having more than one study hall per day. A one credit course typically meets five times per week for a full year. Two one-semester, ½ credit courses taken consecutively in the same year, would qualify as a one credit course. ***If a student fails to schedule enough credits, we reserve the right to schedule an adequate number of credits for him/her.***

Part-time work or extra-curricular activities should not exhaust valuable time and energy needed for academic success. Class workload needs to be balanced with other responsibilities. Tackling more than one can handle, or avoiding challenging classes in favor of less demanding courses, defeats the purpose of a meaningful education.

## SCHEDULING PROCEDURE REQUIREMENTS

1. Each student will participate in a group guidance scheduling presentation/orientation.
2. Each student must prepare a class selection sheet with appropriate signatures:
  - a. Special Education students must have their scheduling sheet signed by their roster teacher.
  - b. All students must have appropriate signatures for math and science.
3. Each student must meet course prerequisites before enrolling in a class.
4. Each student must register for a minimum of 6.50 credits.
5. A student's registration for required and elective courses is a commitment to remain in that class for the entire term.
6. Each student will request their courses via the computer lab during the school day.
7. Once the course request process is complete, course requests can be viewed in Infinite Campus.

## SCHEDULE ADJUSTMENTS

It takes approximately 4 months to complete the master schedule from the time that students complete their online course request to when the schedule is completed. It is a very tedious process which is driven by student requests (the number of student requests dictate whether or not a course is offered and how many sections will be needed). Students are told to carefully choose their courses because once the master schedule is complete, class changes will be minimal. By having access to the Infinite Campus parent/student portal, both students and parents are acknowledging that they understand what courses were selected and that they will accept being placed in those courses for the duration of the school year. The administration makes every attempt to place students in the courses that are selected.

Schedule adjustments should be made by the end of June. Prior to the start of the school year, time is allotted for last minute changes by making an appointment with the student's school counselor. Any requests must be made via the Google Form found on the district website. Any changes made after that will be done only because of extenuating circumstances.

Dropping a course requires written consent of a parent/guardian, the teacher, an administrator and the student's school counselor. Dropping a course after **7 days** earns an automatic "F" for the course. *There will be no schedule changes at the end of the 1<sup>st</sup> semester.*

Adding a course after the start of a semester will require written consent from a parent/guardian, the teacher, and the school counselor. Drop/Add forms are available in the High School Office, Guidance Office, and on the High School Guidance webpage.

## CLASS SEATING

To be seated in a sophomore homeroom, a 9<sup>th</sup> grade student must have earned 6 credits toward graduation by the end of the school year, including 1 English and 1 Math credit; Junior class seating requires 11 credits, including 2 English and 2 Math credits; Senior class seating requires 16.5 credits. For graduation, students are required to earn 23 credits **in specific content areas**. The following chart outlines the class seating credit requirements for each year.

Grade 9 Freshman - satisfactory completion of 8<sup>th</sup> grade coursework

Grade 10 Sophomore - 6.0 credits or more by the end of 9<sup>th</sup> grade

Grade 11 Junior - 11.0 credits or more by the end of 10<sup>th</sup> grade

Grade 12 Senior - 16.5 credits or more by the end of 11<sup>th</sup> grade

## CLASS RANK

Class rank will be reported on transcripts and applies to college admittance. Determination of class rank will be computed using a quality point formula which includes all courses except Physical Education. There will be a weighting system used for Grade Point Average (GPA) calculation as part of this computation. No weight is calculated when the earned grade is less than a C.

## WEIGHTED COURSES

(A detailed description of course weighting and GPA can be found on pages 55-56.)

Tier 1		Tier 2		Tier 3	
CP English 9, 10, 11, and 12	.0156	Honors English 9 and 10	.0312	AP Language and Composition 11	.0937
Chemistry	.0156	Physics	.0312	AP Literature and Composition 12	.0937
Biology 2	.0156	Calculus	.0312	AP Chemistry	.0937
Algebra 3	.0156	Spanish 4	.0312	AP Pre-Calculus	.0937
Trigonometry	.0156	Statistics 2	.0312	AP Calculus-AB	.0937
Statistics 1	.0156			AP Calculus-BC	.0937
German 3, (Online) Spanish 3	.0156			AP Computer Science Principles	.0937
				AP Computer Science A	.0937
				AP World History	.0937
				AP US History	.0937
				AP Biology	.0937



The quality points for each letter grade are as follows:

**A=4**

**B=3**

**C=2**

**D=1**

**F=0**

### **GRADE POINT AVERAGE FORMULA FOR CALCULATING CLASS RANK**

$$\frac{\sum[\text{Grade} \times \text{Credit Value}]}{\sum \text{Attempted Credits}} + 0.0156 \times \text{Tier 1 Credits} + 0.0312 \times \text{Tier 2 Credits} + 0.0937 \times \text{Tier 3 Credits}$$

Class rank calculation was reviewed and adopted by the School Board of Directors in February 2017.

## **HONOR ROLL/HIGH HONOR ROLL**

At the end of each grading period, a High Honor Roll list and an Honor Roll list are published. To attain High Honor Roll requires that a student earn a GPA of 3.75 and above. To achieve Honor Roll status a student must receive a GPA between 3.5 and 3.7499. **If a student receives an X or an I he/she is not eligible for the Honor Roll or the High Honor Roll.**

#### High School Grading Scale

A = 90 - 100%  
B = 80 - 89%  
C = 70 - 79%  
D = 60 - 69%  
F = 59% or less

#### Butler Vo-Tech Grading Scale

A = 93 - 100%  
B = 84 - 92%  
C = 75 - 83%  
D = 66 - 74%  
F = 65% or less

Percentages will be reported each marking period. Final grades will be determined by an average of the percentage earned for each marking period plus the final exam. A cumulative percentage will appear on the student's final report card. The student's permanent record will only reflect a final letter grade.

## **What is an unweighted GPA?**

Unweighted GPA is calculated by making each letter grade into a number. The average of these numbers becomes the unweighted GPA.

A	4
B	3
C	2
D	1
F	0

If a student takes 6 classes and earns 3 A's and 3 B's, the student's unweighted GPA would be a 3.500. It would be calculated by adding the numbers associated with each letter grade and then dividing by the total number of credits.

$$4 + 4 + 4 + 3 + 3 + 3 = 21$$

$$21/6 = 3.500$$

# What are incentive points?

Incentive points are increases to GPA that encourage students to enroll in more challenging courses. As a result, a student can either raise his or her GPA by taking courses with incentive points or not be penalized for slightly lower grades in courses with incentive points.

Incentive points are added to the student's unweighted GPA. Calculating an unweighted GPA before adding incentive points ensures that the number of credits in which the student enrolls does not impact the incentive for an individual class. This means that students can take as many classes without incentive points as they would like without impacting the incentives earned in classes that do have incentive points.

In the example below, Student A earns the highest GPA by enrolling in an AP course and still earning an A in every class. Student B has the second highest GPA despite earning a B in AP English because the incentive points for AP English make a B in AP English worth more than an A in General English. Student C still earns a 4.000 by getting an A in every class, but does not exceed 4.000 since none of the classes had incentive points.

AP Student A	AP Student B	General Student
AP English – A	AP English – B	General English – A
15 other credits – A	15 other credits – A	15 other credits – A
4.0937	4.0312	4.000

## How are incentive points calculated?

The decimal values for each tier were created based on 16 credits. In order for a student to be considered a senior, he or she must have earned at least 16 credits. Rather than take the incentive points divided by the number of credits each student has earned, the Karns City Area School District decided to divide each student's incentive points by 16 to ensure that all senior transcripts were treated equally in terms of incentive points.

Tier 1	$0.25/16 = 0.0156$
Tier 2	$0.50/16 = 0.0312$
Tier 3	$1.50/16 = 0.0937$

The values of the incentive points are based on the academic rigor of each course. College prep courses receive an incentive but not as high as AP or honors. Since AP courses are typically the most challenging type of course offered, AP courses receive the highest number of incentive points.

## INCOMPLETE GRADES

An incomplete grade must be made up within 10 school days after the completion of a marking period. Otherwise, it will become a failure grade for the stated period. It is the student's responsibility to see the instructor for all make-up work and for meeting the requirements.

# NCAA FRESHMAN ELIGIBILITY STANDARDS QUICK REFERENCE GUIDE

Students who plan to participate in Division I, II, or III college athletics are responsible for planning their academic studies in accordance with NCAA (Nation Collegiate Athletic Association) standards as follows:

## DIVISION I

To be eligible to practice, compete and receive athletics scholarships in your first full-time year at a Division I school, you must graduate from high school and meet ALL the following requirements:

- Complete a total of 16 NCAA core courses\* in the following areas:
  - 4 years of English.
  - + 3 years of math (Algebra 1 or higher).
  - + 2 years of natural/physical science (including one year of lab science if offered).
  - + 2 years of social science.
  - + 1 additional year of English, math or natural/physical science.
  - + 4 additional years of English, math, natural/physical science, social science, foreign language, comparative religion or philosophy.
- Complete 10 of your 16 core courses, including seven in English, math or natural/physical science, before the start of your seventh semester. Once you begin your seventh semester, you must have more than 10 core courses completed to be able to repeat or replace any of the 10 courses used to meet the 10/7 requirement. Refer to [www.eligibilitycenter.org](http://www.eligibilitycenter.org) for details.
- Earn an SAT combined score or ACT sum score that matches your core-course GPA (minimum 2.300) on the Division I sliding scale. Refer to [www.eligibilitycenter.org](http://www.eligibilitycenter.org) for details.

\*All courses taken must be on the NCAA list of approved courses for Karns City. See Guidance Office for list. NOT ALL COURSES ARE NCAA APPROVED. YOU ARE RESPONSIBLE FOR ENSURING THE COURSES YOU TAKE ARE APPROVED WHEN YOU SCHEDULE.

## DIVISION II

To be eligible to practice, compete and receive an athletics scholarship in your first full-time year at a Division II school, you must graduate from high school and meet ALL the following requirements:

- Complete a total of 16 core courses\* in the following areas:
- 3 years of English.
  - + 2 years of math (Algebra 1 or higher).
  - + 2 years of natural/physical science (including one year of lab science if offered).
  - + 2 years of social science.
  - + 3 additional years of English, math or natural or physical science.
  - + 4 additional years of English, math, natural or physical science, social science, foreign language, comparative religion or philosophy.

- Division II will use a sliding scale to match test scores and core-course grade-point averages (GPA). The SAT score used for NCAA purposes includes **only** the critical reading and math sections. The writing section of the SAT is not used.
- The ACT score used for NCAA purposes is a **sum** of the following four sections: English, mathematics, reading and science.
- **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.**
- **Grade-Point Average**
- Be sure to look at the list of NCAA Courses on the NCAA Eligibility Center's website ([www.eligibilitycenter.org](http://www.eligibilitycenter.org)) for the list of approved courses at Karns City. Only courses that appear on the approved list of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide.
- The current **Division II** core GPA requirement is a minimum of 2.000. **Division II** core GPA required to be eligible for competition **on or after August 1, 2018**, is 2.200 (corresponding test-score requirements are listed on the Sliding Scale on Page No. 2 of this sheet).
- The minimum **Division II** core GPA required to receive athletics aid and practice as a partial qualifier **on or after August 1, 2018**, is 2.000 (corresponding test-score requirements are listed on the Sliding Scale on Page No. 2 of this sheet).
- Remember, the NCAA core GPA is calculated using NCAA core courses only.

\*All courses taken must be on the NCAA list of approved courses for Karns City. See Guidance Office for list or [www.eligibilitycenter.org](http://www.eligibilitycenter.org). NOT ALL COURSES ARE NCAA APPROVED. YOU ARE RESPONSIBLE FOR ENSURING THE COURSES YOU TAKE ARE APPROVED WHEN YOU SCHEDULE.

**FOR MORE INFORMATION REFER TO [WWW.ELIGIBILITYCENTER.ORG](http://WWW.ELIGIBILITYCENTER.ORG)**

# COMPLETE COURSE LISTING: 2025-2026

*For a class to be offered, it must have a minimum enrollment of 8 student*

## **English**

English 9, 10, 11, 12  
College Prep English 9, 10, 11, 12  
Honors English 9, 10  
AP:Language and Composition 11  
AP:Literature and Composition 12

## **Social Studies**

U.S. History 9  
AP U.S. History  
American Government/PA  
History 10 World Cultures 11  
AP World History  
Consumer  
Economics/Sociology 12

## **Mathematics**

Algebra 1A  
Algebra 1B  
Geometry C  
Math Excursions  
Algebra 1, 2, 3  
Geometry  
Geometry 9  
Statistics 1 and 2  
Trigonometry  
AP Precalculus  
Calculus  
AP Calculus-AB  
AP Calculus-BC

## **Science**

Physical Science  
Biology  
Biology CP  
Biology 2  
AP Biology  
Applied Science  
Environmental Science  
Chemistry  
AP Chemistry  
Physics

## **Foreign Language**

Spanish 1, 2, 3, 4

## **Business/Technology**

Introduction to Business  
Career Readiness  
Entrepreneurship  
Business Law  
Accounting  
Sports & Entertainment Marketing  
Personal Finance  
Television News Production

## **Fine Arts**

Concert Band  
KC Chorus  
Instrumental Instruction  
Theatre Arts  
Music Studies  
Guitar  
Introduction to Art  
Art 1  
Advanced Art  
Painting  
Drawing

## **Home Economics**

Sewing and Foods  
Foods and Nutrition  
Child Development  
Child Development 2  
Contemporary Living  
Gremlin Gourmet  
International Cuisine

**STEM**

Computer Programming I  
Computer Programming II  
AP Computer Science A  
Robotics  
Web Design  
AP Computer Science Principles

**Health/Physical Education**

Health  
Sports Health  
Physical Education 9,10,11,12  
Summer PE  
Personalized Fitness  
Advanced Physical Fitness &  
Conditioning  
Adaptive Physical Education  
Wellness through Movement

**Additional Courses**

Driver Education  
Yearbook Production

**Vo-Tech**

Air Conditioning/Heating  
Collision Repair  
Automotive Tech  
Building Construction  
Carpentry  
Computer Network/Security  
Cosmetology  
Culinary Arts  
Diversified Occupations  
Graphic Designs  
Health Assistant  
Heavy Equipment  
Machine Technology  
Protective Services  
Sports Medicine  
Welding

# COURSE DESCRIPTIONS

## COURSES FROM THE ART DEPARTMENT

**INTRODUCTION TO ART** Semester - ½ credit

***Elective: Grades 9-12***

Students will improve their competency and understanding of design quality. They will experience different styles of drawing, painting and three-dimensional or mixed media art forms. Students will experiment with the different mediums to improve craftsmanship and problem solving skills essential in creating interesting works of art.

**ART 1** Full Year - 1 credit

***Elective: Grades 10-12***

***Prerequisite: Introduction to Art or Painting or Drawing***

Students will become involved with the elements and principles of design and color. Students will work with a variety of mediums and be able to develop their powers of observation and perception. Students will be presented with themes connected to art history from many time periods and movements to serve as inspiration for their own artistic ideas and mastery of materials and technique.

**ART 2** Full Year - 1 credit

***Elective: Grades 11-12***

***Prerequisite: Art 1***

Students will use the techniques, mediums, and historical knowledge learned in previous art courses to become a more independent artist. Students will be presented with themes or larger social ideas and be encouraged to develop original ideas to represent personal beliefs while incorporating a unique choice of artistic style. All mediums may be used to represent ideas and themes.

**ADVANCED ART** Full Year - 1 credit

***Elective: Grade 12***

***Prerequisite: Reserved for 12th grade students that are entering a career or higher education in the arts or a creative field.***

Students will use knowledge and skills achieved in previous art courses as a precursor to becoming a more independent artist in Advanced Art. This course is designed for seniors that are pursuing a career in art. Students will use this course to develop a portfolio required for college applications. They will work independently on artworks to build a personal portfolio and explore individual and original style and creativity as an artist. Students will critique works of others and develop an understanding of multiple professions in art. They will research colleges & institutions and complete application requirements for desired institutions.



**PAINTING** Semester - ½ credit

***Elective: Grades 9 -12***

Students will develop skills necessary for achieving the elements and principles of design effectively in paintings. They will produce paintings with a variety of subjects including landscapes, abstract designs, portraits, etc. They will practice color mixing and theory to develop skills and techniques with watercolors and acrylics. They will learn how to manipulate paint using a variety of tools.

**DRAWING** Semester - ½ credit

***Elective: Grades 9-12***

Students will develop and strengthen drawing skills through exploration of value, contour, and gesture drawings. They will learn and understand the importance of the elements and principles of design by transforming lines into shapes and then forms. Students will study and critique historical and contemporary works to further understand the drawing process. They will develop skill through a variety of subjects including still-life drawings, figures, and abstract designs.

## **COURSES FROM THE BUSINESS DEPARTMENT**

**INTRODUCTION TO BUSINESS** Semester - ½ credit

***Elective: Grades 9-12***

This course prepares students to cope with and become part of the contemporary business world. It also provides information which encourages students to begin thinking about a career. The general information is significant for all students, but is especially vital to business students as an introductory background for other business courses.

**SPORTS & ENTERTAINMENT MARKETING** Semester - ½ credit

***Elective: Grades 11-12***

***Prerequisite: Instructor approval***

In this semester course students will learn the core standards of marketing in the areas of sports and entertainment. The field is rapidly growing, and this course is a guide in taking a career step in this direction. Many colleges and universities offer specialization in sports and entertainment marketing. This course specifically uses strategies, case studies and projects that examine ethical and legal issues, technology and key marketing issues from the industry. The course incorporates national marketing standards including distribution, information management, pricing, promotion and selling in a context that is interesting and relevant to the student. The concept of marketing includes the research of product sales, target groups for specific products, pricing of the products to compete as well as data storage and collection for future product creation. This course is project oriented. The course involves simultaneous projects that require research, writing skills and multi-tasking ability.

**PERSONAL FINANCE** Semester - ½ credit

***Elective: Grades 10-12***

Students in this class will focus on their role as a citizen, family member, consumer and active participant in the business world. The Personal Finance course will inform students of their various responsibilities and provide opportunities for self-awareness, expression and satisfaction in a highly technical and competitive society. Topics that will be covered are Money Management, Risk Management, Financial Security and Career Decisions. The course text will be accompanied by an activity-based simulation that

covers the experience of being on one's own in the financial world. Students should have mastered basic math skills such as percentages, problem solving and mathematical computations.

**CAREER READINESS** Semester - ½ Credit

***Required: Grades 10-11***

Career Readiness is a one-semester course that facilitates career awareness and preparation for the student. This course provides self-assessment opportunities, to assist each student in selection of a career that suits his or her skills and interests. The course will provide each student the tools necessary to be able to follow through with the job application process. Students will learn how to apply experience and service to any future career aspirations. This course is designed to prepare each student for a career that will provide both retention and advancement opportunities.

**ENTREPRENEURSHIP** Semester – ½ credit

***Elective: Grades 10-12***

This course will take the students through all of the essential steps required to own their own business. The course will include a hands-on simulation of building a successful business plan. Course content will include skill inventory for successful business management, the marketing mix, financing and protecting a business as well as hiring and management of a staff. The course allows the students to be creative while learning about the risks and benefits of private business ownership.

**ACCOUNTING** Full Year - 1 credit

***Elective: Grades 11-12***

***Prerequisite: Instructor approval***

\*Accounting counts as an elective credit only

In this course students will learn accounting terminology and the application of accounting principles, practices, and procedures for businesses. Accounting software will be integrated where applicable. The course includes complete coverage of three types of business including proprietorship, partnership and corporation. Each type of business is presented in a complete accounting cycle covering analyzing transactions, journalizing, posting, petty cash, financial statements, and adjusting and closing entries. Students will be required to work on assignments in class as well as outside of class. The working papers require time for completion and neatness is vital to the understanding of the material.

**BUSINESS LAW** Semester - ½ credit

***Elective: Grades 10-12***

***Prerequisite: Instructor approval***

This course highlights business transactions of both individuals and organizations. Topics covered include civil wrongs and crimes, the nature and classification of contracts, and the transfer of ownership when buying and selling goods.

**TELEVISION NEWS PRODUCTION** Semester - ½ credit

***Elective: Grades 10-12***

***Prerequisite: Instructor approval***

Do you want to be a star? Do you want everyone to know your name? Then KCTV is looking for you! This is a hands-on course that will teach you the ins and outs of putting on a morning show. Students will be responsible for writing copy as well as delivering, filming, and editing segments in order to create the morning announcements seen on KCTV.

## COURSE IN DRIVER EDUCATION

**DRIVER EDUCATION** Semester - ½ credit

***Required: Grade 10***

This course will prepare students to become safe, knowledgeable, and responsible drivers in the transportation system. In this class, students will learn the basic controls and operation skills needed to drive a motor vehicle. Other topics that students will learn include how to obtain a driver's license, distracted driving, defensive driving strategies, how to drive in various environments and conditions, automobile insurance, drugs/alcohol, impaired driving, driving laws, automobile maintenance, etc.

## COURSES FROM THE ENGLISH DEPARTMENT

*Whether planning on furthering their formal education or looking toward employment immediately following graduation, students can expect that the Karns City High School English program will attempt to address their literacy skills and needs. It is strongly recommended that students who are college bound schedule college prep or A.P. English. Students heading into the workforce after graduation are recommended to take a general English course. Please see the recommended prerequisites for honors and A.P. courses.*

**ENGLISH 9** Full Year - 1 credit

***Required: Grade 9***

English 9 develops competency in all language arts and critical thinking skills. Students engage in various types of writing from informal journaling to formal research. Students will read a variety of literature including nonfiction, fiction, drama, and poetry. **Beginning in 2023-2024, as part of this course, all ninth graders will be required to take the Keystone Literature Exam.**

**COLLEGE PREP ENGLISH 9** Full Year - 1 credit

***Elective: Grade 9***

***Prerequisite: a final grade of at least 80% or higher in previous English course and proficiency on the Pennsylvania System of School Assessment (PSSA). Teacher recommendation can be used in lieu of prerequisites. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule CP English 9***

College Prep English 9 develops competency in all language arts and critical thinking skills. Students engage in many types of writing from informal journaling to formal research. Processed compositions include narrative, informative, and persuasive forms. In addition to reading a variety of literature including nonfiction, fiction, drama, and poetry, students can expect to read several complete novels. ***The expanded scope of reading and writing requires students in College Prep English 9, as with all college preparatory classes, to spend more time outside of class to complete assignments.*** Beginning in 2023- 2024, as part of this course, all ninth graders will be required to take the Keystone Literature Exam.

**HONORS ENGLISH 9** Full Year - 1 credit**Elective: Grade 9**

***Prerequisite: a final grade of at least 80% or higher in Honors English 8 or a final grade of 90% or higher in Academic English 8 (if moving up) and proficiency on the Pennsylvania System of School Assessment (PSSA). Teacher recommendation can be used in lieu of prerequisites. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule Honors English 9.***

Honors English 9 is an accelerated study in literature and writing. Students will read and critically analyze a broad range of informational texts and literary works, including classic and contemporary poems, short stories, novels, and plays. Writings will include brief and lengthy descriptive, narrative, persuasive, and informational pieces. Along with reading and writing, students will pursue an advanced study of vocabulary, research, and formal and informal speaking, in order to build and approve the critical thinking, communication, and study skills necessary for successful college and work performance. ***The expanded scope of reading and writing requires students in Honors English 9, as with all honors classes, to spend more time outside of class to complete assignments.*** Beginning in 2023-2024, as part of this course, all ninth graders will be required to take the Keystone Literature Exam.

**ENGLISH 10** Full Year - 1 credit**Required: Grade 10**

General English 10 is designed to develop competency in all language arts and critical thinking skills outlined in PA's Core Standards. Students will engage in many types of writing from informal journaling to formal research. Students will read a variety of literature including nonfiction, fiction, and drama. As part of this course, students who did not reach proficiency on the Keystone Literature Exam during freshman year may be required to retest during sophomore year.

**COLLEGE PREP ENGLISH 10** Full Year - 1 credit**Elective: Grade 10**

***Prerequisite: a final grade of at least 80% or higher in previous English course and proficiency on the Keystone Literature exam. Teacher recommendation can be used in lieu of prerequisites. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule CP English 10.***

College Prep English 10 is designed to develop competency in all language arts and critical thinking skills as outlined in PA's Core Standards. Students will engage in many types of writing from informal journaling to formal research. Processed compositions include narrative, informative, and persuasive forms. Students will read a variety of literature including nonfiction, fiction, and drama; students can expect to read several complete novels. The expanded scope of reading and writing requires students in College Prep English 10 as with all college preparatory classes, to spend more time outside of class to complete assignments. As part of this course, students who did not reach proficiency on the Keystone Literature Exam during freshman year may be required to retest during sophomore year.

**HONORS ENGLISH 10** Full Year - 1 credit***Elective: Grade 10******Prerequisite: a final grade of at least 80% or higher in Honors English 9 or a final grade of 90% or higher in College Prep English 9 (if moving up) and proficiency on the Keystone Literature exam.******Teacher recommendation can be used in lieu of prerequisites. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule Honors English 10.***

Honors English 10 intends to refine students' reading, analysis, and critical thinking skills. Students will read multiple genres from world literature. Students will engage in careful reading and critical analysis of literature. Through the close reading of selected stories, novels, poetry, and drama students will deepen their understanding of the ways writers use language to provide meaning for their readers. Students will be expected to plan, draft, and complete written compositions regularly based on the literature we read. In addition to literary analysis, students will also research and write persuasively. Students will be expected to speak regularly in informal and formal situations. Vocabulary study will also be a regular component of the course. The expanded scope of reading and writing requires students in Honors English 10, as with all honors classes, to spend more time outside of class to complete assignments. As part of this course, students who did not reach proficiency on the Keystone Literature Exam during freshman year may be required to retest during sophomore year.

**ENGLISH 11** Full Year - 1 credit ***Required: Grade 11***

This course is designed to be a comprehensive overview of various genres (types), cultures and themes in U.S. literature. Students develop reading skills, writing skills, and vocabulary through the reading of contemporary literature, written response, composition and group discussion. Students will continue to develop research techniques and skills, completing an exploratory research paper over the course of the semester and presenting this research to the class in a presentation.

**COLLEGE PREP ENGLISH 11 (CWHHS)** Full Year - 1 credit ***Elective: Grade 11******Prerequisite: A final grade of at least 80% or higher in previous English course and proficiency on the Keystone Literature exam. Teacher recommendation can be used in lieu of prerequisites. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule CP English 11.***

The key objective of this course is for students to develop clear and concise writing and reading abilities to support their academic and professional career goals. Writing instruction and assignments will include the narrative, expository, analytical, and argumentative essay forms. Students in this course will also analyze United States Literature as it reflects social perspective and historical significance. Students will continue to develop research techniques and skills, completing a research paper over the course of the semester. **The expanded scope of reading and writing requires students in College Prep English 11, as well as all college preparatory classes, to spend more time outside of class to complete assignments.** This course is taught in conjunction with Butler County Community College's College Within the High School program, and students can earn credit for BC3's ENGL 101 upon satisfactory completion of the course and appropriate fees paid.

**AP LANGUAGE AND COMPOSITION: ELEMENTS OF AMERICAN LITERATURE*****Elective: Grade 11***

Full Year - 1 credit

***Prerequisite: Due to the rigorous level of the course, students should have earned at least a 90% in College Prep English 10, (or 80% or higher in Honors English 10), advanced on the most recent standardized test, and/or recommendation and approval of current English instructor. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule AP English Lit. and Comp.***

This course engages students in the study of rhetoric, “the study of effective speaking and writing” (from Burton’s “Silva Rhetoricae”). Students become skilled readers, using a variety of literary analysis methods. The course readings are a combination of texts representative of the literary movements of American literature, in addition to texts grouped by rhetorical mode. The analysis of prose and, in turn, the student’s own writing focuses on higher purpose, audience expectations, writer’s attitude, and conventions of writing and language as a means of effective communication. Students become mature readers and writers through interpretation, class discussions, and written analysis of texts. Students, therefore, should expect a rigorous undergraduate English experience with intellectual challenges and a considerable workload that culminates with the AP English Language and Composition Exam. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

**ENGLISH 12** Full Year - 1 credit***Required: Grade 12***

English 12 develops competency in all language arts and critical thinking skills. Students will also continue refining research skills and are required to deliver a presentation. These areas and other literacy skills are addressed through continued emphasis on writing and literary analysis with a concentration on various genres of British literature.

**COLLEGE PREP ENGLISH 12 (CWHS)** Full Year - 1 credit***Elective:******Grade 12***

***Prerequisite: Students must have earned at least an 80% in College Prep English 11 and Proficiency on the most recent standardized test, and/or recommendation and approval of current English instructor. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule CP English 12.***

College Prep English 12 focuses on preparing students for the rigors of college. The course is designed to develop competency in all language arts and critical thinking skills. Students will broaden writing skills, improve research techniques, and deliver a presentation. These and other literacy skills are addressed through continued emphasis on literacy analysis with a concentration on British Literature. The expanded scope of reading and writing requires students in College Prep English 12, as with all college preparatory classes, to spend more time outside of class to complete assignments. Students will also complete a formal research unit. This course is taught in conjunction with Butler County Community College’s College Within the High School program, and students can earn credit for BC3’s ENGL 102 upon satisfactory completion of the course and appropriate fees paid, so long as BC3 approves the College Prep English 12 curriculum.

## **AP ENGLISH LITERATURE AND COMPOSITION: ELEMENTS OF BRITISH LITERATURE Elective: Grade 12**

Full Year - 1 credit

***Prerequisite: Due to the rigorous level of the course, students must have earned at least a 90% in College Prep English 11 (or 80% or higher in AP Language and Composition), Advanced on the most recent standardized test, and/or recommendation and approval of current English instructor. If prerequisites are not met and teacher recommendation is not obtained, a parental waiver must be completed in order for the student to schedule AP English Lit. and Comp.***

AP Literature and Composition: Elements of British Literature, designed to be commensurate with an introductory college-level course, will challenge and enrich the eager literature student. Students should expect an accelerated, rigorous English experience rich in critical thinking, literary analysis, scholarly discussion, and intellectual challenges that culminates with the AP English and Literature Exam in May. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

Students will also complete a formal research unit.

## **COURSES FROM THE FOREIGN LANGUAGE DEPARTMENT**

**SPANISH 1** Full Year - 1 credit

***Elective: Grades 9-12***

***Prerequisite: Final grade of at least 70% in English and instructor recommendation***

Students will be introduced to beginning conversation, grammar structures, vocabulary, and culture of Spanish speaking countries.

**SPANISH 2** Full Year - 1 credit

***Elective: Grades 10-12***

***Prerequisite: Final grade of at least 75% in Spanish 1 and instructor recommendation***

Emphasis is placed on further understanding and use of grammar, vocabulary, and development of conversational and listening skills.

**SPANISH 3** Full Year - 1 credit

***Elective: Grades 11-12***

***Prerequisite: Final grade of at least 80% in Spanish 2 and instructor recommendation***

This course emphasizes more conversation. Students will improve their listening, speaking, writing, and reading skills in the target language. Students will be introduced to various literature, arts, music, and history when materials are available.

**SPANISH 4** Full Year - 1 credit

***Elective: Grade 12***

***Prerequisite: Final grade of at least 80% in Spanish 3 and instructor recommendation***

**Students at this level will be expected to converse in Spanish.** Students will improve their listening, speaking, reading, and writing skills in the target language. Students at this level will also expand their knowledge of the culture by studying various literature, art, music, and history when materials are available.



## COURSES FROM THE HEALTH AND PHYSICAL EDUCATION DEPARTMENT

**HEALTH** Semester - ½ credit ***Required: Grade 9-10***

This course is designed to cover the body systems, disease, physical fitness, nutrition, and weight control. A special concentration on drug and alcohol use/abuse and AIDS is included, health and the mind, the life cycle, and Red Cross CPR Certification. With a recommendation from the Health 8 instructor, students may schedule Sports Health as an alternative to Health-.

**SPORTS HEALTH** Full Year - 1 credit

***Elective: Grades 10-12***

***Prerequisite: Final grade of at least 84% in Health and recommendation of Health instructor***

This course is designed to provide the student with the opportunity to gain valuable knowledge and practical experience in the care, treatment, prevention, and rehabilitation of sports related injuries. Students will be afforded the opportunity to become certified in First Aid and CPR. This course is of particular value for those interested in pursuing a career in an allied health or medical field. STUDENTS ARE REQUIRED TO COMPLETE 30 HOURS OF PRACTICAL EXPERIENCE UNDER THE DIRECT SUPERVISION OF A CERTIFIED ATHLETIC TRAINER. **Students may take this course to satisfy the Health requirement for graduation or as an elective in grade 12.**

**PHYSICAL EDUCATION** Semester -½ credit

***Required: Grades 9-12***

This course is designed to provide an opportunity to increase physical activity and knowledge through instruction on personal fitness, net and wall activities, territory games, creative movement, team building/cooperative activities and lifetime/leisure activities. This course will allow each individual to be successful in finding their passion in how they want to be physically active for a lifetime.

Students are expected to dress and actively participate in each session unless a doctor's excuse is presented. **If a student does not dress for class three times he/she will lose credit for the course.**

**ADVANCED PHYSICAL FITNESS & CONDITIONING** Semester - ½ credit

***Elective: Grades 9 -12***

***Prerequisite: A recommendation from a physical education instructor & Mr. Burnett is required***

This course is designed for the "advanced physical education student." The course will focus on the discussion of and participation in **strenuous activities** designed to develop and improve the health and performance-related aspects of physical fitness. Areas of concentration will include: selection and proper use of exercise equipment and exercise techniques, progressive resistive exercise training, circuit training, competitive weightlifting, plyometrics, cardiovascular training, injury prevention and sport specific training. *Students may take this course to satisfy a physical education requirement for graduation.*

**ADAPTIVE PHYSICAL EDUCATION** Semester - ½ credit

***Elective: Grades 9-12***

Adaptive Physical Education is similar to regular physical education classes except the class size is smaller to permit concentrated development in coordination, strength, flexibility, and improved physical fitness. Skills for individual and team sports will be adjusted to individual needs and capabilities. Students will



gain confidence and knowledge that will allow them to maximize their full potential.

**WELLNESS THROUGH MOVEMENT** Semester - ½ credit

***Elective: Grades 9-12***

***Prerequisite: Instructor approval is required***

This course is designed to educate and empower students to participate in physical activity for lifetime wellness. The focus of Wellness through Movement is to expose students to alternative movement methods and increase awareness of each students' overall wellness through the development of personal movement programming. This course will engage students in various styles of fitness, goal setting techniques, and the exploration of the physical, mental, social, and emotional benefits of physical activity. This course will allow each individual to find their passion in how they want to stay physically active for a lifetime. When the students leave this class, they will be able to create their own workouts while being knowledgeable about the benefits of an active lifestyle and why it is important.

**SUMMER PHYSICAL EDUCATION:** 3 Weeks - ½ credit

***Elective: Grades 9-12***

***Cost associated with course (Amount is dependent on the number of students enrolled)***

This course allows students to earn/recover their physical education credit for a school year in three weeks at the beginning of summer break. This is beneficial for students who would like to add additional classes to their schedule, those who do not have a study hall and would like one, or those who have failed physical education previously. This course is designed to provide an opportunity to increase physical activity and knowledge through instruction on personal fitness, net and wall activities, territory games, creative movement, team building/cooperative activities and lifetime/leisure activities.

**PERSONALIZED FITNESS** Semester - ½ credit

***Elective: Grades 9-12***

***Prerequisite: Instructor approval is required***

Personalized Fitness is an online course that allows students who are actively involved in a PIAA recognized sport at KCHS to use the physical component of their sport to earn their physical education credit. This class allows students to be more flexible with their schedule during the school year. In addition to the student's sport(s), students will be required to complete mental/theory based school assignments completely on their own time. The mental/theory based assignments will teach students how to strategically create a fitness plan that will help them physically excel in their sport(s). Students will also be required to log their physical activity hours associated with their PIAA recognized sport and get their coaches signature for each quarter.

## COURSES FROM THE FAMILY & CONSUMER SCIENCE DEPARTMENT

### **SEWING AND FOODS** Semester - ½ credit

***Elective: Grades 9-12***

This course (formerly Family & Consumer Science 1) includes an experience in both the food and sewing labs. It is designed to expand on the concepts introduced in Family & Consumer Science 7. In addition, the course will introduce basic sewing techniques that will be utilized to create a gym bag.

### **FOODS AND NUTRITION** Semester - ½ credit

***Elective: Grades 10-11***

This class is designed for academic, as well as, general education students. The course is focused on nutrition based on the food guide pyramid. Kitchen management and food preparation skills will also be addressed. It is of particular interest for students planning careers in elementary education, health and physical education, biology, or science. The course will combine textbook work with hands-on lab experiences preparing various related foods.

### **CHILD DEVELOPMENT** Full Year - 1 credit

***Elective: Grades 10-12***

***Prerequisite: Instructor approval***

This course is designed to help prepare students for parenthood. It will also help prepare students for a career in early childhood education and other childcare fields. This course will focus on the family, pregnancy, and the development of children through age 5. Students will be required to take part in a parenting simulation.

### **CHILD DEVELOPMENT 2** Semester - ½ credit

***Elective: Grades 11-12***

***Prerequisite: Successful completion of Child Development***

This course is a continuation of Child Development. It will focus on the physical, mental, and emotional development of children from ages 5 to 12. The course will also focus on how the family dynamic changes throughout these years.

### **CONTEMPORARY LIVING** Semester - ½ credit

***Elective: Grades 10-12***

The purpose of this course is to help students learn to deal with the realities of life throughout the entire life cycle. Information is presented in a factual, objective manner so that students can weigh alternatives and consequences in order to make wise decisions.

### **GREMLIN GOURMET** Semester - ½ credit

***Elective: Grade 12***

Gremlin Gourmet is designed to give students a concentrated class dealing with various categories of foods. Cooking lab experiences will focus on meal planning activities. Beef, poultry, and soups along with vegetables and desserts will be prepared. Students will also learn home canning techniques. Specific food handling techniques along with nutrition, manners, and serving styles will be covered. A special gingerbread project will be designed, constructed, and decorated.

**INTERNATIONAL CUISINE** Semester - ½ credit

***Elective: Grades 11-12***

This course is designed to give students the opportunity to expand their knowledge of the customs, traditions, and cuisine of countries across the world. This course will incorporate map skills, research projects, class discussions, demonstrations, cooking labs, and videos. Students will have the opportunity to try many new foods and cooking techniques as they “travel” around the world.

## **COURSES FROM THE STEM DEPARTMENT**

**COMPUTER PROGRAMMING I** Semester - ½ credit

***Elective: Grades 9-12***

***Prerequisite: Passed Algebra I***

This course uses Python as the primary programming language. Emphasis will be placed on learning structured programming techniques that will allow students to create programs to solve problems in business, industry, and education. The students will use pair programming to reinforce concepts that have been taught. Students will also use the Raspberry Pi's to learn python programming and to use these concepts to program Minecraft players. This class is recommended for students who are planning to continue education in science, technical training or engineering.

**COMPUTER PROGRAMMING II** Semester - ½ credit

***Elective: Grades 9-12***

***Prerequisite: Final grade of at least 70% in Computer Programming I***

Students will study Java programming language. Throughout the course, students will also get experience with different physical programming and engineering projects. Students will get to choose these projects as a class to enhance their learning and apply their skills. **Attendance, class participation, and project completion are required to be successful.**

**WEB DESIGN** Semester ½ credit

***Elective: Grades 9-12***

This is a project based course that students will learn HTML and CSS to create their own homepages that will be used as a portfolio for all their future creations. This course is designed for students of all ability levels including students with no programming experience. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their very own multi-page websites.

**ROBOTICS** Semester - ½ credit

***Elective: Grades 10-12***

This course will focus on the building and programming of robots. The students will be utilizing VEX robots and will work in teams to complete various challenges and skills including, but not limited to, moving certain distances, completing a maze, and lifting objects. The students will also have an opportunity to utilize the 3D printers and the laser cutter to add extra items to their robots. **Attendance, class participation, and project completion are required to be successful.**

**AP COMPUTER SCIENCE PRINCIPLES** Full Year - 1 credit***Elective: Grades 10-12******Recommended prerequisite: Due to the rigorous level of the course, students should have earned proficiency on the most recent standardized test.***

This course gives students a foundation in computing skills and insight on how computing and technology influences the world around them. This course is designed around 7 big ideas which include creativity, abstraction, data and information, algorithms, programming, the internet, and global impact. The assessment of this course contains two parts. The first part has students creating artifacts and written responses throughout the school year which could include creating a program, a spreadsheet, graph, or videos. The second part will be a 2 hour test consisting of 74 multiple choice questions. This course will be beneficial as more jobs open in the computer field. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

**AP COMPUTER SCIENCE A** Full Year - 1 credit***Elective: Grades 10-12******Recommended prerequisite: Due to the rigorous level of the course, students should have earned proficiency on the most recent standardized test.***

This course is a year-long course designed to help students master the basics of Java and equip them to successfully pass the AP Computer Science A Exam at the end of the school year. Computer Science A utilizes object-oriented programming with an emphasis on problem solving and algorithm development and is meant to be the equivalent of a first-semester course in computer science. It also includes the study of data structures and abstraction. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

## COURSES FROM THE MATH DEPARTMENT

### **All math courses have prerequisites.**

Please make certain you meet all the prerequisites before scheduling any math course.

All students must pass the Algebra I Keystone Exam or meet district graduation requirements.

When scheduling, all students must have their current math teacher provide a signature to move on to the appropriate course.

### Rules associated with progression:

Students may take two classes at once except when taking Algebra I, but may not take single classes out of this order:

Complete Algebra I – may take Algebra II **or** (Algebra II and Geometry) **not just Geometry**

Complete Algebra II – may take Geometry **or** (Geometry and Algebra III) **not just Algebra**

**III** Complete Geometry – may take AP Precalculus, Algebra III, or Trigonometry

Complete Algebra III – may take Trigonometry (Unless already taken)

Complete Trigonometry – may take Algebra 3 (if not completed), Calculus, or AP Calculus AB

Complete AP Precalculus – may take AP Calculus AB or Calculus

Any Calculus – may be taken after AP Precalculus or (Algebra 3 and Trigonometry)

Statistics – may be taken after obtaining a 70% in Algebra II

Computer Programming I, AP Computer Science Principles, and Robotics & 3D printing – may be taken after passing Algebra 1

Results from state exams and other District adopted assessments will help determine “math placement” for all senior high math courses

### **ALGEBRA 1A** Full Year - 1 credit

***Elective: Grade 9***

***Prerequisite: Passing grade in Math 8 and teacher recommendation***

This course is the first of a two-course sequence which is designed to provide the same mathematical topics as Algebra 1. The difference is in the pace in which the content is covered. Students will be instructed in the terminology and symbolism of algebra specific to linear equations and inequalities. The content will prepare students for the Algebra 1 Keystone test.

### **ALGEBRA 1B** Full year - 1 credit

***Elective: Grade 10***

***Prerequisite: Passing grade in Algebra 1A and teacher recommendation***

This course is the second of a two-course sequence which is designed to provide the same mathematical topics as Algebra 1. The difference is in the pace in which the content is covered. Students will be instructed in descriptive statistics, equations and expressions, and quadratic functions and modeling. **As part of this course, all students are required to take the Algebra I section of the Keystone Exam.**

**GEOMETRY C** Full Year - 1 credit***Elective: Grades 11-12******Prerequisite: Must have passing grade in Algebra 1B and recommendation of math instructor***

This course is designed to develop a student's reasoning ability using both inductive and deductive logic. Theorems, assumptions, and definitions are applied to numerical problems as well as some introductory 2-column proofs. All of these skills will be studied in detail as they relate to geometric figures.

**MATH EXCURSIONS** Full Year - 1 credit***Elective: Grade 12******Prerequisite: Passing Grade in Geometry C and recommendation of math instructor***

This course is designed to provide exposure to a variety of mathematical ideas. The emphasis is on interesting topics that involve parts of mathematics which are significant in public affairs and are centered on an assortment of real world examples and applications specifically chosen to illustrate the usefulness, relevance, and beauty of mathematics. Topics will vary and may include but not be limited to basic math, algebra, geometry, measurement, and personal finance. This course is designed for students preparing to take the trade union tests.

**ALGEBRA 1** Full Year - 1 credit***Elective: Grades 9-12******Prerequisite: Final grade of at least 70% in Pre-Algebra and recommendation of math instructor***

This is a foundational course of skills and procedures needed for continuing in higher math. Students will be instructed in the terminology and symbolism of algebra along with being introduced to the basic properties of real numbers and their use pertaining to operations, graphic interpretation, and solving equations. **As part of this course, all students are required to take the Algebra I section of the Keystone Exam.**

**ALGEBRA 2** Full Year - 1 credit***Elective: Grades 9-12******Prerequisite: Passing grade in Algebra 1 and recommendation of math instructor***

This course reviews and extends topics covered in Algebra I. Emphasis is placed on using algebra as a problem-solving tool. Topics covered include the number system, solving, graphing, and writing linear equations and inequalities, linear systems exponents, radical expressions, rational expressions, quadratics, polynomials, probability, and data analysis.

**ALGEBRA 3** Full Year - 1 credit***Elective: Grades 9 -12******Prerequisite: Passing Grade in Algebra 2 and recommendation of math instructor***

This course is designed to strengthen the understanding of both real and imaginary number systems and those mathematical processes studied in Algebra 2. Additional topics which have not been introduced in Algebra 2 will be presented on a level appropriate to academic studies. **Students can take Algebra 3 along with Geometry or after they have already taken Geometry. Students cannot take Algebra 3 in place of Geometry.**

**GEOMETRY** Full Year - 1 credit***Elective: Grades 9 -12******Prerequisite: Passing grade in Algebra I and recommendation of math instructor or passing grade in Algebra 2 and/or recommendation of math instructor***

This course is designed to develop a student's reasoning ability using both inductive and deductive logic. Theorems, assumptions and definitions are applied to formal proof and numerical problems which are studied in detail as they relate to geometric figures.

**GEOMETRY 9** Full Year - 1 credit***Elective: Grades 9******Prerequisite: 'B' average in Honors Algebra 8***

This course is designed to develop a student's reasoning ability using both inductive and deductive logic. Geometry does not require that a student has already taken Algebra 2. In addition to reviewing important algebra concepts, this course will also contain theorems, definitions, postulates, and assumptions and how they are applied to formal proof and numerical problems which are studied in detail as they relate to geometric figures.

**TRIGONOMETRY** Full Year - 1 credit***Elective: Grades 10-12******Prerequisite: Final grade of at least 70% in Geometry and recommendation of math instructor***

This course includes the study of the six trigonometric ratios and their applications to right triangles. It also includes the Law of Sines and Law of Cosines to solve oblique triangle and vector problems. The periodic patterns are discovered from the graphs of the circular functions and additionally the functions are used in many life applications. Finally, skills required for more advanced work in mathematics, i.e., the ability to use trigonometric identities to write trigonometric expressions in alternate forms, is developed by verifying trigonometric equations.

**AP PRECALCULUS** Full Year - 1 credit***Elective: Grade 10-12******Recommended prerequisite: Due to the rigorous level of the course, students should have earned at least an 85% in Algebra 2 and Geometry, proficiency on the most recent standardized test, and recommendation and approval of the current mathematics teacher.***

This course includes polynomial, rational, exponential, logarithmic, trigonometric, and polar functions, as well as functions involving parameters, vectors, and matrices. Students considering entering fields of mathematics, science, engineering, business and some medical fields or planning to take AP Calculus are encouraged to take this class. This course will be taught at an academic level and pace intended to prepare students for the AP Exam. All students enrolled in this course will be encouraged to take the AP Exam. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

**STATISTICS 1** Semester - .5 Credit***Elective: Grades 11-12******Prerequisite: Final grade of at least 70% in Algebra 2 and recommendation of instructor***

This course is conducted in a manner in which the students and teacher work together to discover rules and characteristics of statistics. Graphing calculators and computers are used as integral parts of the course. Topics such as data collection, distribution of univariate data, and relationships between bivariate data will be explored.

**STATISTICS 2** Semester - .5 Credit***Elective: Grades 11-12******Prerequisite: Passing grade in Statistics 1.***

Statistics 1 and 2 must be taken in consecutive semesters. This course is conducted in a manner in which the students and teacher work together to discover the rules and characteristics of statistics. Graphing calculators and computers are used as integral parts of the course. Statistics 1 topics will be further explored, as will probability and statistical inference (confidence intervals and hypothesis testing).

**CALCULUS** Full Year - 1 credit***Elective: Grade 11-12******Prerequisite: Final grade of at least 70% in Algebra 3 and Trigonometry and recommendation of instructor***

This course includes the study of limits, differentiation and integration, as well as their applications. Students considering entering fields of mathematics, engineering, business and some medical fields are encouraged to take this class. This course is not intended to prepare students for the AP Exam, however, it will still be taught at a level of academic rigor appropriate for students wishing to continue studying mathematics beyond Trigonometry and Algebra III.

**AP CALCULUS-AB** Full Year - 1 credit***Elective: Grade 11-12******Recommended prerequisite: Due to the rigorous level of the course, students should have earned at least an 85% in Algebra 3 and Trigonometry, OR at least an 80% in AP Precalculus, and recommendation and approval of current mathematics teacher.***

This course includes the study of limits, differentiation and integration, as well as their applications. Students considering entering fields of mathematics, engineering, business and some medical fields are encouraged to take this class. This course will be taught at an academic level and pace intended to prepare students for the AP Exam. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

**AP CALCULUS-BC** Full Year - 1 credit***Elective: Grade 12******Recommended prerequisite: Due to the rigorous level of the course, students should have earned at least an 80% in AP Calculus AB, and recommendation and approval of AP Calculus AB teacher.***

This course includes the study of topics from AP Calculus AB, but also includes additional topics such as parametric and polar functions, vectors, sequences, series including power series, and other applications of integration. This course will be taught at an academic level and pace intended to prepare students for the AP Exam. All students enrolled in this course will be encouraged to take the AP Exam. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the



cost of the exam.

## **COURSES FROM THE MUSIC DEPARTMENT**

**SENIOR HIGH CONCERT BAND** Full Year - 1 credit

***Elective: Grades 9-12***

This course prepares students to perform as an ensemble in a variety of musical styles from different time periods. Instruction will include proper breathing, phrasing, articulation, dynamics, and intonation. Some music theory will also be presented. STUDENTS ELECTING THIS COURSE WILL BE REQUIRED TO ATTEND SCHEDULED CONCERTS AND PERFORMANCES.

**INSTRUMENTAL INSTRUCTION** Full Year - 1 credit

***Elective: Grades 9-12***

This course is designed for students who have limited or no experience on a band instrument, or who are wanting/willing to switch from one band instrument to another, or wish to develop greater mastery on their current instrument. Students will be taught fundamental techniques applicable to their instrument, and will be expected to demonstrate these techniques during rehearsal and performance.

**KC CHORUS** Full Year - 1 credit

***Elective: Grades 9-12***

This course prepares students to perform in mixed singing groups, as well as male only and female only groups. Literature studied is representative of many musical periods and styles. STUDENTS ELECTING THIS COURSE WILL BE REQUIRED TO ATTEND THE CHORAL CONCERTS & SCHEDULED PERFORMANCES.

**MUSIC STUDIES** Full Year - 1 credit

***Elective: Grades 9-12***

This course is designed to give students the opportunity to explore several areas of music. These areas include, but are not limited to, music theory, music history, music composition, world music, etc. The class will allow students to examine aspects of music that interest them individually. Through the class, students will gain an appreciation of the inner workings of music and music's place in society and culture.

**GUITAR** Semester - ½ credit

***Elective: Grades 9-12***

Guitar class is a comprehensive course where proper technique and music reading is taught with the intent that each student will be able to successfully play any music that interests them now or in the future. Students will play in small groups, with the class as a whole, and solo. They will learn to play melodies and chords, receiving whole class and individual instruction from the teacher. Students will work independently at their own pace, as well as cooperatively with small groups and with the class as a whole. School guitars and other supplies are supplied.

**THEATRE ARTS** Semester - ½ credit

***Elective: Grades 9-12***

This Theatre Arts class is designed to train actors in a wide range of skills, techniques and experiences that provide a broad overview of theatrical performance, practice, history and literature. Students will be expected to act in scenes and monologues which reflect various theater genres and cultures, learn basic stage blocking, notation, and stage movement, create an in-depth character study, develop an idea to stage, and learn basic theater technical operations and design.

## **COURSES FROM THE SCIENCE DEPARTMENT**

**PHYSICAL SCIENCE** Full Year - 1 credit

***Required: Grade 9***

This course is the integrated study of matter and energy. The content emphasizes everyday application of basic physical science principles. Topics include measurement, matter, energy, chemical interactions, motion, forces, waves, electricity, and magnetism. Appropriate laboratory exercises are integrated with studies throughout the year.

**GENERAL BIOLOGY** Full Year - 1 credit

***Elective: Grade 10***

Major emphasis in this course centers on life characteristics, the chemical basis of life to include organic compounds, cell structure and function, cellular energy, including photosynthesis, glycolysis, respiration, and fermentation as well as cellular division and growth. Additional topics will deal with nucleic acids and protein synthesis (DNA and RNA), genetics, human heredity, ecology, and the evolution of life. Concepts dealing with genetic engineering and technology are also topics covered in this course. *THIS COURSE CANNOT BE SCHEDULED WITH OR AFTER BIOLOGY CP. As part of this course, all students are required to take the Biology section of the Keystone Exam.*

**BIOLOGY CP** Full Year - 1 credit

***Elective: Grades 9-10***

***Prerequisite: Final grade of at least 80% in previous science course, score basic or above on PSSA, and instructor approval***

Major emphasis in this course centers on life characteristics, the chemical basis of life to include organic compounds, cell structure and function, cellular energy, including photosynthesis, glycolysis, respiration, and fermentation as well as cellular division and growth. Additional topics will deal with nucleic acids and protein synthesis (DNA and RNA), genetics, human heredity, ecology, and the evolution of life. Concepts dealing with genetic engineering and technology are also topics covered in this course. *If Biology CP is scheduled after General Biology, it will count as an elective credit only. As part of this course, all students are required to take the Biology section of the Keystone Exam.*

**BIOLOGY 2** Full Year - 1½ credits

***Elective: Grades 10-12***

***Prerequisite: Grade of at least 84% in Biology CP by the end of the 3<sup>rd</sup> quarter and instructor approval***

This course is **designed for college-bound students who desire a deeper understanding of biology.** In depth topics of advanced study include organic chemistry, modern topics in genetics evolution, animal and plant reproduction, and general topics of environmental biology. Class meets seven periods per week including two lab periods.

**APPLIED SCIENCE** Full Year - 1 credit***Elective: Grades 11-12******Prerequisite: Biology or Biology CP***

This is a general course intended for the students who enjoy the “hands-on” STEM approach to learning. It is a course that directly encounters communication between partner(s), scientific method/problem solving skills, and a “back to the drawing board” mentality. Emphasis is on applying science to everyday life. Some topics explored include rocketry, forensics, bridges, roller coasters, boats, airplanes and flight, catapults, parachutes, food science, and other topics. Students will also explore and research current science news topics.

**ENVIRONMENTAL SCIENCE** Full Year - 1 credit***Elective: Grades 10-12******Prerequisite: Biology or Biology CP***

This is a one year course designed for 10<sup>th</sup> through 12<sup>th</sup> grade students who are interested in their environment, locally and globally. While the course strongly supports the Pennsylvania Educational Standards, critical evaluations of current issues and an introduction to sustainable systems are valuable additions.

**CHEMISTRY (CWHS)** Full Year - 1½ credits***Elective: Grades 10-12******Prerequisite: Final grade of at least 70% in Algebra 2, Physical Science and Biology and instructor approval***

This course addresses the nature and behavior of matter. Emphasis is on the logical use of mathematics in applications of laws and principles to problem solving. In laboratory exercises instructional focus is on techniques and measurements. Class meets seven periods per week including two block periods. This course is taught in conjunction with Butler County Community College’s College Within the High School program, and students can earn credit for BC3’s CHEM100 upon satisfactory completion of the course and appropriate fees paid.

**AP CHEMISTRY** Full Year - 1 ½ credits***Elective: Grade 11-12******Recommended prerequisite: Due to the rigorous level of the course, students should have earned at least an 85% in Chemistry, proficiency on the most recent standardized test, and recommendation and approval of Chemistry teacher.***

The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore content such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. Because the main focus of the course is preparation for the AP Exam, evaluation is heavily based on tests and quizzes. There is a significant amount of time required outside of class to be successful in this course. The class is intended for students planning a scientific or technical career. This class meets eight periods per week including three block periods. Students are encouraged (but are not required) to take the AP Exam. Upon earning a 3 or higher, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

**AP BIOLOGY** Full Year - 1 ½ credits

***Elective: Grade 11-12***

***Recommended prerequisite: Due to the rigorous level of the course, students should have earned at least an 85% in CP Biology, proficiency on the most recent standardized test, and recommendation and approval of Biology teacher.***

The AP Biology course provides students with a college-level foundation to support future advanced coursework in biology. Students cultivate their understanding of biology through inquiry-based investigations, as they explore content such as: chemistry of life, cell structure and function, cellular energetics, cell communication and cell cycle, heredity, gene expression and regulation, natural selection and ecology. Because the main focus of the course is preparation for the AP Exam, evaluation is heavily based on tests and quizzes. There is a significant amount of time required outside of class to be successful in this course. The class is intended for students planning a scientific or technical career. This class meets eight periods per week including three block periods. Students are encouraged (but are not required) to take the AP Exam. Upon earning a 3 or higher, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

**PHYSICS** Full Year - 1½ credits

***Elective: Grade 11-12***

***Prerequisite: Final grade of at least 80% in Algebra 2, Geometry & Physical Science and instructor approval***

Physics is the study of the relationships between matter and energy and how these relationships govern the physical world. Motion, forces, light, sound, and electricity are topics studied during this college preparatory course. Emphasis in the lab is on theory and practical application. Class meets seven periods per week including two block periods.

## **COURSES FROM THE HISTORY DEPARTMENT**

**U.S. HISTORY (1865 to Present)** Full Year - 1 credit

***Required: Grade 9***

This course examines the United States from the Civil War Reconstruction period to present day by intertwining topical and chronological approaches. The major topics considered are the transformation of agriculture and industry, the contribution of various racial and ethnic groups, the Holocaust and genocide, the change in foreign policy from isolationism to world leadership and the major economic, political and social reform movements during this epoch. These topics are organized chronologically through the analysis of each presidential election and the investigation of the resulting administrations' interaction with the United States Congress and the Supreme Court in governing the United States of America. Students will interpret and practice using maps, graphs, charts, and several types of primary and secondary sources, including legal documents, photographs, editorials, and cartoons.

**AP US HISTORY:** Full Year – 1 credit***Elective: Grades 10-12***

***Recommended prerequisite: Due to the rigorous level of the course, students should have earned at least a 90% in Government or World Cultures, proficiency on the most recent standardized test, and recommendation and approval of World Cultures teacher.***

In AP U.S. History, students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change. The course also provides eight themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; work, exchange, and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

**AMERICAN GOVERNMENT/PA HISTORY** Full Year - 1 credit***Required: Grade 10***

This course is designed to provide a basic understanding of the principles of American government and American citizenship. The course will cover the basic concepts of national, state and local governments with special emphasis on the U.S. Constitution. Special features of the course will describe the active role of American citizens as they exercise their rights and carry out their responsibilities in today's world. Pennsylvania history is a brief overview of the development of our commonwealth with particular attention to western Pennsylvania and local history.

**WORLD CULTURES** Full Year - 1 credit***Required: Grade 11***

This course is designed to provide an understanding of the major regions of the world from the emergence of early civilization to the present. Learning goals include understanding the evolution and adaptation of peoples to the region's geography, the history and its bearing on modern events, the various social patterns and ways of life, and the economics and governing systems of the region.

**CONSUMER ECONOMICS/SOCIOLOGY** Full Year - 1 credit***Required: Grade 12***

This course will help students identify basic choices consumers make, and the information, understanding and skills needed to make them. The sociology component of the course will prepare students to live and work together for a happier and more successful life. Topics presented include social organization, the influences of cultural and social change, the purpose and effects of social institutions and the study of relevant social problems based on geographical location.

**AP WORLD HISTORY MODERN:** Full Year - 1 credit

***Elective: Grades 11-12***

***Recommended prerequisite: Due to the rigorous level of the course, students should have earned at least a 90% in Government or World Cultures, proficiency on the most recent standardized test, and recommendation and approval of World Cultures teacher.***

AP World History Modern is a reading & writing intensive course that is both accelerated and enriched with the goal of preparing the students to take the AP exam. The class content will cover various cultures and events from all over the globe from a bit before 1200 AD and up to and including the modern world. Students will be expected to complete multiple 'out of class' reading novel assignments and journaling, some of which may be assigned over the summer. The course load will be rigorous and require students to complete various tasks outside of the classroom setting. Students are encouraged (but not required) to take the AP Exam. Upon earning a 3 or above, the student may be awarded college credit by the college or university they choose to attend. Additionally, students earning a score of 3 or above, will receive a scholarship through the Karns City Scholastic Foundation to cover the cost of the exam.

Please note: This class may now count as a 4<sup>th</sup> Social Studies credit, in place of Consumer Economics/Sociology during the 12<sup>th</sup> grade year. However, students will need to take a semester of Economics online in order to fulfill the state requirement. Juniors may still take this class, however seniors find it easier having already taken World Cultures during their 11<sup>th</sup> grade year. This option also helps balance the AP course load.

## **COURSE IN YEARBOOK PRODUCTION**

**YEARBOOK PRODUCTION** Full Year - 1 credit

***Elective: Grades 9-12***

***Prerequisite: Student request and completion of application process which includes teacher references for a selection of up to 15 students by the instructor.***

This course involves the creation of the Karns City yearbook through the implementation of advisor and editor specifications. This includes writing copy, planning layouts, taking photos in school and at school events and designing advertisements as assigned. ***Students must be willing to sell advertisements to area businesses, which includes phone calls and visits as assigned. When necessary, students will devote time beyond the class period.***

## BUTLER COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL

Butler County Area Vocational-Technical School offers programming in technical and mechanical, professional, service, and production occupations to eligible high school students residing in the Karns City Area School District. Students who complete 9<sup>th</sup>, 10<sup>th</sup> or 11<sup>th</sup> grade may apply for admission to any of the 15 different programs by submitting the *BCAVTS Application for Admissions* to their academic guidance counselor. **Please see [www.butlertec.us](http://www.butlertec.us), Guidance Office and New Student Admission Application for complete admission procedure details.** Accepted students will spend a two-hour portion of their day involved in career and technical education at BCAVTS and the remainder of the day completing academic requirements at Karns City High School.

The desire to learn, a cooperative work attitude, and the ability to profit from technical instruction are qualities needed to be a successful student in any of the programs. As a student at BCAVTS, the technical course work which includes cutting edge, rigorous and relevant curriculum will prepare students of all ability levels to enter an occupation, a post-secondary school, or the military. Each student's pathway to success is unique. BCAVTS can help you explore that pathway. Students considering enrollment at BCAVTS need to consider a number of personal factors including: career interests, academic abilities, social maturity, and specific career aptitudes.

**Earning College Credit at BCAVTS:** Students can earn advanced placement at various post-secondary institutions by taking advantage of *local articulation agreements* established by BCAVTS or by accessing statewide articulation credits for eligible students.

**Local Articulation Agreements** have been established with college and career schools throughout the region. Qualifying students have the opportunity to receive credits at specific institutions for learning achievements accomplished at BCAVTS. The number of credits awarded and specific requirements vary for each institution. Call the BCAVTS Guidance Office for the latest articulation information at 724-282-0735. See pages 37-38 for details.

**Statewide Articulation Agreements:** BCAVTS strives to prepare students for college and careers in a diverse, high-performing workforce. Beginning in the 2009-2010 school year, BCAVTS courses have become *program of study (POS)* courses which combine relevant, coherent, and rigorous technical education with aligned challenging academic standards. These career and technical *programs of study* include a statewide articulation agreement partnership between secondary schools and post-secondary institutions throughout Pennsylvania. To view current statewide articulation agreements, go to the equivalency search results for PA Bureau of Career and Technical Education at the website [www.collegetransfer.net](http://www.collegetransfer.net).

Qualifying second and third year students may wish to consider participating in the **Cooperative Education** program. The program can provide a student the opportunity to be employed with his/her area of vocational-technical study and earn wages while under the supervision of the BCAVTS Cooperative Education Coordinator. All BCAVTS courses are eligible for participation, but students need to meet specific requirements, apply, and be accepted into the program. Cooperative Education guidelines established by the PA Department of Education and approved by the local area school districts will be followed.

Numerous **certification** opportunities exist for BCAVTS students. A certification is a business and/or industry documentation verifying skills and knowledge in a specific area of study. These certifications may become increasingly important for advancement within a career area. NOCTI (National



Occupational Competency Testing Institute) Certification is offered to all students by Machine Technology students.

Machine Technology students are offered NIMS (National Institute of Metalworking Skills) Certification. Many more **certifications** and **accreditations** are displayed in each Course Description in the next few pages.

BCAVTS has a school counselor who works cooperatively with Karns City Area High School counselors in order to meet the needs of our students. Questions about specific programs of study at BCAVTS can be referred to the Karns City school counselors or to the guidance office at BCAVTS (724) 282-0735. student will also gain enough residential and commercial electrical knowledge to choose entrance to electrical/electrical skilled careers. Skills learned in the classroom include working with compressors, relays, and thermostats; recovering and recycling refrigerants; learning related plumbing and electrical skills; fabricating sheet metal, following electrical and building codes, and installing, servicing, and maintaining residential or commercial heating, refrigeration, ventilation, and air conditioning systems.

**Butler County Area Vocational-Technical School  
Articulation Agreements Approved by Joint Operating Committee**

<b>Institution</b>	<b>Butler County AVTS Program</b>	<b>Credits Received</b>
<b>Butler County Community College</b> P.O. Box 1203 Butler, PA 16001 724-287-8711	<ul style="list-style-type: none"> <li>● Advertising Design</li> <li>● Computer Networking</li> <li>● Cosmetology</li> <li>● Culinary Arts</li> <li>● Graphic Arts</li> <li>● Health Assistant/Occupations</li> <li>● HVAC</li> <li>● Machine Technology</li> <li>● Protective Services</li> <li>● NOCTI: - 6 technology elective credits will be awarded for the completion of NOCTI skill and written exams</li> </ul>	<ul style="list-style-type: none"> <li>● Up to 12 credits</li> <li>● Up to 10 credits</li> <li>● Up to 15 credits</li> <li>● Up to 5 credits</li> <li>● Up to 12 credits</li> <li>● Up to 10 credits</li> <li>● Up to 9 credits</li> <li>● Up to 15 credits</li> <li>● Up to 15 credits</li> <li>● Up to 6 credits</li> </ul>
<b>Career Training Academy</b> 950 Fifth Ave. New Kensington, Pa 15068 724-337-1000 <a href="http://www.careerta.edu">www.careerta.edu</a>	<ul style="list-style-type: none"> <li>● Health Assistant</li> </ul>	Up to 15.5 credits
<b>Douglas Education Center</b> 130 Seventh Street Monessen, PA 15062 724-684-3684 or 1-800-413-6013	<ul style="list-style-type: none"> <li>● Cosmetology</li> <li>● Advertising Design</li> <li>● Graphic Arts</li> </ul>	<ul style="list-style-type: none"> <li>● Up to 18 credits</li> <li>● Up to 9 credits</li> <li>● Up to 9 credits</li> </ul>
<b>Empire Beauty Academy</b> 2394 Mountainview Dr. West Mifflin, Pa 15122	<ul style="list-style-type: none"> <li>● Cosmetology</li> </ul>	Earn Cosmetology state board hours



1-412-653-2870 <a href="http://www.empire.edu">www.empire.edu</a>		
<b>Erie Institute of Technology</b> 940 Millcreek Mall Erie, Pa 16565	<ul style="list-style-type: none"> <li>• Computer Networking/ Telecommunications</li> </ul>	Up to 4 credits
<b>Fountain of Youth Academy of Cosmetology</b> 108 Scharberry Lane Mars, PA 16046 724-624-3691	<ul style="list-style-type: none"> <li>• Cosmetology</li> </ul>	Earn Cosmetology State Board Hours
<b>New Castle School of Trades</b> 4164 US 422 Pulaski, PA 16143	<ul style="list-style-type: none"> <li>• Machine Technology</li> </ul>	Earn up to 1750 hours
<b>Ohio Technical College</b> 1374 E 51st Street Cleveland, OH 44103 216070408868 <a href="http://www.ohiotech.edu">www.ohiotech.edu</a> Christine Granchie	<ul style="list-style-type: none"> <li>• Automotive Technology</li> <li>• Collision Repair</li> <li>• Heavy Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• ASE/NATEF Certification Assistance</li> <li>• Advanced Recognition for Automotive/Collision Repair/Diesel Modules</li> <li>• Continuing ASE Certification Preparation</li> <li>• Opportunity to Continue Education in NATEF Accredited Programs w/ Reduced Cost</li> </ul>
<b>Pittsburgh Technical College</b> 1111 McKee Rd. Oakdale, PA 15071 1-412-809-5100	<ul style="list-style-type: none"> <li>• Advertising Design</li> <li>• Computer Networking/ Telecommunications</li> <li>• Graphic Arts</li> <li>• Health Assistant</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 5 credits</li> <li>• Up to 7 credits</li> <li>• Up to 8 credits</li> <li>• Up to 9 credits</li> </ul>
<b>Rosedale Technical Institute</b> 215 Beecham Dr., Suite 2 Pittsburgh, PA 15205 1-412-521-6200	<ul style="list-style-type: none"> <li>• Automotive Technology</li> <li>• Diesel Technology</li> <li>• HVAC</li> <li>• Welding</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 9 credits</li> <li>• Up to 9.5 credits</li> <li>• Up to 13 credits</li> <li>• Up to 3.5 credits</li> </ul>

<b>Triangle Tech, Inc.</b> 1940 Perrysville Ave. Pittsburgh, PA 15214-9901 1-412-359-1000	<ul style="list-style-type: none"> <li>• Building Construction</li> <li>• Carpentry</li> <li>• HVAC</li> <li>• Welding</li> </ul>	<ul style="list-style-type: none"> <li>• TBD</li> <li>• 4.5 semester credits</li> <li>• 12.5 semester credits</li> <li>• 1006 hours/18 credits</li> </ul>
<b>Universal Technical Institute</b> 601 Regency Drive Glendale Heights, IL 60139 1-630-893-2651	<ul style="list-style-type: none"> <li>• Automotive Technology</li> <li>• Collision Repair</li> </ul>	<ul style="list-style-type: none"> <li>• TBD</li> <li>• TBD</li> </ul>
<b>University of Northwestern Ohio</b> 1441 N. Cable Rd. Lima, OH 45805 419-227-3141	<ul style="list-style-type: none"> <li>• Automotive Technology</li> <li>• Air Conditioning/Heating</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 12 credits</li> <li>• Up to 6 credits</li> </ul>

#### Informal Agreements

Institution	Butler County AVTS Program
<b>Community College of Allegheny County</b> 808 Ridge Ave. Pittsburgh, PA 15212 412-237-2511	<ul style="list-style-type: none"> <li>• Air Conditioning/Heating</li> </ul>
<b>Pennsylvania College of Technology</b> One College Drive Williamsport, PA 17701 1-800-367-9222	<ul style="list-style-type: none"> <li>• Air Condition/Heating</li> <li>• Carpentry</li> <li>• Heavy Equipment Repair</li> </ul>

# Butler County Area Vocational–Technical School Course Descriptions

## Air Conditioning/Heating/Electrical

Air Conditioning/Heating/Electrical is a three-year program where students will be introduced to careers centering on the installation, maintenance and repair of heating, ventilation, and air conditioning equipment. The student will also gain enough residential and commercial electrical knowledge to choose entrance to electrical/electrical skilled careers. Skills learned in the classroom will include working with compressors, relays, and thermostats, recovering and recycling refrigerants, learning related plumbing and electrical skills, fabricating sheet metal, following electrical and building codes, and installing, servicing, and maintaining residential or commercial heating, refrigeration, ventilation, and air conditioning systems.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>
<ul style="list-style-type: none"><li>● Industry Competency Exam/Air Conditioning &amp; Refrigeration Institute</li><li>● Industry Competency Exam-Light Commercial Air Conditioning and Heating</li><li>● Industry Competency Exam-Residential Air Conditioning and Heating</li><li>● EPA 608 Refrigerant Recovery/ESCO Group</li><li>● Student Outcome Assessment/HVAC Excellence</li><li>● S/P2 Construction/S/P2</li></ul>	<ul style="list-style-type: none"><li>● ESCO 609 Automotive</li><li>● Mainstream Engineering<ul style="list-style-type: none"><li>○ 410A Safety Certification</li><li>○ Preventive Maintenance</li></ul></li><li>● CSST Certification</li><li>● S/P2 Soft Skills</li></ul>

## Collision Repair

Collision Repair is a three-year program where students will be introduced to careers centering on the replacement and repair of automobile and light truck bodies and body parts. Modern technologies that include the use of PPG envirobase water-based paint, a touch-mix computerized paint mixing system, resistance welder, aluminum welder, paint gun cleaner, paint recycling system, fresh air breathing system for the paint booth, hydraulic lift, and a cost estimating area will be used daily by students. Instruction utilizes the Inter-Industry Conference on Auto Collision Repair (I-CAR) curriculum presented through theory and application/practical skills with assessment of both portions reflected in each student's grade.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>	<b>Accreditations</b>
<ul style="list-style-type: none"> <li>• Bolted-On Exterior Panels-Part 1/I-CAR</li> <li>• Hazardous Material Storage and Disposal/I-CAR</li> <li>• I-CAR Certification(s)/I-CAR</li> <li>• Intro to Collision Repair Process Overview/I-CAR</li> <li>• Intro to Refinishing and Corrosion Protection-Part 1/I-CAR</li> <li>• Intro to Refinishing and Corrosion Protection-Part 2/I-CAR</li> <li>• Intro to Safety Systems/I-CAR</li> <li>• Intro to Tools, Equipment and Attachment Methods-Part 2/I-CAR</li> <li>• Intro to Tools, Equipment and Attachment Methods-Part 1/I-CAR</li> <li>• Intro to Vehicle Parts Terminology-Part 1/I-CAR Refinishing Equipment/I-CAR</li> <li>• Removing and Installing Exterior Trim, Pinstripes and Decals/I-CAR</li> <li>• Removing and Installing Hardware Interior Trim/I CAR</li> <li>• Surface Preparation and Masking/I-CAR</li> <li>• S/P2 Automotive/S/P2</li> <li>• S/P2 Safety and Pollution Prevention/S/P2</li> </ul>	<ul style="list-style-type: none"> <li>• ALLVIS (Laser frame measuring system)</li> <li>• Aluminum Welding</li> <li>• Mig Welding</li> <li>• EPA Refrigerant Recovery (auto a/c)</li> <li>• LORD Fusor® Bumper Repair</li> <li>• S/P2 Soft Skills</li> <li>• S/P2 Supervisor's Course</li> </ul>	<ul style="list-style-type: none"> <li>• I-CAR</li> </ul>

## Automotive Technology

Automotive Technology is a three-year program where students will be introduced to the highly technical careers centering on the repair of automobiles and light trucks. Rigorous evaluation by the National Automotive Technicians Education Foundation (NATEF) and the National Institute for Automotive Service Excellence (ASE) has resulted in program certification that assures employers standards of excellence in the areas of instruction, facilities, and equipment are met by BCAVTS. Skill areas include maintenance and light repair of brakes, heating, ventilation and air conditioning systems, automatic transmissions, and electrical/electronic systems for the first year and engine performance, engine repair, suspension and steering, and manual drive train/clutches for the second year of the Program.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>	<b>Accreditations</b>
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<ul style="list-style-type: none"> <li>• AYES Certificate/Automotive Youth Educational Systems</li> <li>• Section 609 Cert for Refrigerant Recycling and Recovery/Mobile Air Conditioning Society Worldwide</li> <li>• Automotive Service Excellence Cert (ASE)/Nat'l Automotive Technicians Education Excellence</li> <li>• Certified Emissions Inspector/PA Department of Transportation</li> <li>• Certified Safety Inspector, Cat I/PA Department of Transportation</li> <li>• Certified Safety Inspector, Cat II/PA Department of Transportation</li> <li>• Certified Safety Inspector, Cat III/PA Department of Transportation</li> <li>• S/P2-Automotive/S/P2</li> <li>• S/P2 Safety and Pollution Prevention/S/P2</li> <li>• Meter Certification/Snap-On</li> <li>• Motor Oil Certification/Valvoline</li> </ul>	<ul style="list-style-type: none"> <li>• A1-A8 &amp; G1 under Automotive Service Excellence (ASE)</li> <li>• Subaru Level 1 Technician</li> <li>• New Ford Technician Service Training</li> <li>• S/P2 Soft Skills</li> <li>• S/P2 Supervisor's Course</li> </ul>	<ul style="list-style-type: none"> <li>• ASE Education Foundation</li> <li>• National Coalition of Certification Center (NC3)</li> <li>• PennDOT</li> </ul>
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## Building Construction

Building Construction is a three-year program where students will be introduced to careers in the residential and commercial building industry. Each student will receive training in carpentry, electrical, masonry, Roofing, interior finishes, and plumbing. Students will learn about building codes, blueprint reading and following proper safety procedures. The students in Building Construction will develop their skills and understanding through small community projects and building skill trainers as part of the curriculum.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>	<b>Apprenticeships/Training Programs</b>
<ul style="list-style-type: none"> <li>• Fork Lift Operator/National Safety Council</li> <li>• S/P2-Construction/S/P2</li> <li>• S/P2 Soft Skills</li> </ul>	<ul style="list-style-type: none"> <li>• JLG AWPT in Aerial Work Platforms</li> <li>• All Terrain Telehandler and Telehandler Rough Terrain Truck</li> <li>• Power Actuated Fasteners Certification</li> </ul>	<ul style="list-style-type: none"> <li>• KML Carpenters</li> </ul>

## Carpentry

Carpentry is a three-year program where students will be introduced to careers for general carpenters,

wood workers, and fine cabinetmakers. Classroom learning will include measuring, use of power tools, use of hand tools, types of fasteners, types of adhesives, rough carpentry skills, cabinetmaking skills, blueprint reading skills, programming/operation of the CNC (computerized numerical control) lathe, router, lasers, and moving gantry router. The Butler County AVTS Carpentry program also offers articulation with the KML Carpenters Apprenticeship and Training Program.

<b>Certifications Industry Recognized/Providers</b>	<b>Accreditations</b>
<ul style="list-style-type: none"> <li>• Fork Lift Operator/National Safety Council</li> <li>• S/P2 Construction/S/P2</li> </ul>	<ul style="list-style-type: none"> <li>• S/P2 Soft Skills</li> </ul>

## **Computer Networking and Security**

Computer Networking and Security is a three-year program where students will be introduced to the creative technologies related to supporting and networking computer systems in both theory and direct application. The fundamentals of media, topologies, protocols, standards, network implementation, and network support will be presented. Problem solving and analytical skill development are taught and supported within the classroom structure. As an authorized Pearson/VUE Test Center, students are eligible to complete advanced industry certifications right in their classroom.

<b>Certifications Industry Recognized/Providers</b>
<ul style="list-style-type: none"> <li>• CompTIA (A+, Network+, IT Fundamentals+, Security+, Server+)</li> <li>• Network Pro/Test Out</li> <li>• PC Pro/Test Out</li> <li>• Security Pro/Test Out</li> <li>• OSHA CareerSafe/(OSHA)</li> <li>• S/P2 Soft Skills</li> </ul>

## **Cosmetology**

***PREREQUISITE(S):*** *Students must purchase uniforms, equipment, and supplies as prescribed by the school.*

Cosmetology is a three-year program where students will be introduced to the skills surrounding careers in the beauty industry. Competence in hair care, skin care, and nail care are obtained through learning techniques and practice on mannequins. Advanced practice on classmates and then clients will take place in the school's salon, Salon 7. All hours earned during daily class and evening class are applied to the 1250 hours of instruction needed for the PA State Board of Cosmetology State Board Certification test. State licensing can be pursued once the required number of hours is obtained.

Certifications Industry Recognized/Providers
<ul style="list-style-type: none"> <li>• Cosmetologist/PA Dept of State, State Board of Cosmetology</li> <li>• S/P2-Cosmetology/S/P2</li> <li>• Nova Lash Eye Lash Extension Certification</li> <li>• S/P2 Soft Skills</li> </ul>

## Diversified Occupations

Diversified Occupations is a one-year, senior only class designed specifically for students to obtain transferable job skills across any discipline. While there are 15 other programs of study at BCAVTS, Diversified Occupations allows us to work with students to set up cooperative education placements in fields not offered at BCAVTS or when a program is fully enrolled. For example, we do not offer a program related to dental hygienists, however, we can place a student at a dental office under diversified occupations. Rather than focusing on the specific job skills needed to be a hygienist, the class itself focuses on subjects such as time management, understanding criticism, and budgeting.

Unlike capstone, which is a co-op placement within a program of study we offer at BCAVTS, this class meets weekly on Tuesdays. All other days/shifts should reach at least 20 hours Monday through Friday, while still in accordance with state law. Time not spent at BCAVTS in this program is reserved for completing core coursework for graduation.

The students in Diversified Occupations will complete the NOCTI assessment and receive a Certificate of Completion from the Pennsylvania Department of Education.

Certifications
<ul style="list-style-type: none"> <li>• S/P2 Soft Skills</li> <li>• S/P2 Human Resources</li> </ul>

## Culinary Arts

**PREREQUISITE(S):** *Students must purchase uniforms, equipment, and supplies as prescribed by the school.*

Culinary Arts is a three-year program where students will work in areas such as dining room operations,

cooking, bakeshop, and pastry making. Students will be expected to work individually, in groups, and in a professional kitchen brigade preparing food for the school's restaurant, The Eatery, to experience a wide range of learning experiences in keeping with industry expectations. The food service industry is one of the nation's largest employers, and job opportunities abound for preparation cooks, sous chefs, executive chefs, bakers, pastry chefs, and front of the house positions including wait staff, managers, and food and beverage directors.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>
<ul style="list-style-type: none"> <li>● ServSafe/Manager Food Safety Certification/ National Restaurant Association</li> <li>● ServSafe Food Handler Certification/ServSafe</li> <li>● S/P2 Culinary/S/P2</li> <li>● S/P2 Culinary-Food Safety</li> <li>● S/P2 Soft Skills certifications</li> </ul>	<ul style="list-style-type: none"> <li>● National Restaurant Association <ul style="list-style-type: none"> <li>○ On Cooking</li> <li>○ On Baking</li> </ul> </li> <li>● American Culinary Federation <ul style="list-style-type: none"> <li>○ Intro to Hospitality-Food</li> <li>○ Intro to Hospitality-Baking &amp; Pastry</li> <li>○ Business &amp; Math Skills</li> <li>○ Food Prep</li> <li>○ Garde Manger</li> <li>○ Basic Baking</li> <li>○ Bakery Planning &amp; Preparation</li> <li>○ Advanced Baking &amp; Pastry</li> <li>○ Basic Dining Room Service</li> <li>○ Menu Planning</li> <li>○ Purchasing &amp; Receiving</li> <li>○ Nutrition</li> <li>○ Human Relations Management</li> <li>○ Environmental Sustainability</li> </ul> </li> </ul>

## Graphic Design

***PREREQUISITE(S):*** Students must purchase a grey hooded sweatshirt, USB drive and supplies as prescribed by the school.

Graphic Design is a three-year program where students will be introduced to a variety of graphic



production and advertising techniques and will utilize design concepts used in a commercial or industrial setting. These skills will prepare students to create an artistic rendering of a client's idea. Learning the production fundamentals of the graphic design industry will include utilization of visual media programs such as Adobe Illustrator, Adobe InDesign and Adobe Photoshop; design and production of screen printing; design, production and use of laser etching and cutting tools; vinyl graphic design and production; digital portfolio photography; individual portfolio design, production, and review; and the use of binding, stitching, and cutting tools used in printing production. Other essential elements of the curriculum include: photography, design, basic animation, typography, embroidery, computer illustration, and electronic photo manipulation.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>
<ul style="list-style-type: none"> <li>• Adobe Certified Associate-Visual Communication Using Adobe Illustrator/Certiport</li> <li>• Adobe Certified Associate-Visual Communication Using Adobe Photoshop/Certiport</li> <li>• Adobe Certified Associate-Graphic Design &amp; Illustration Using Adobe Illustrator/Certiport</li> <li>• Design Media Publication Using Adobe Indesign/Certiport</li> <li>• OSHA CareerSafe/(OSHA)</li> <li>• Accreditations are offered through PrintED</li> </ul>	<ul style="list-style-type: none"> <li>• Adobe Certified Associate (ACA) for Adobe Photoshop CS5 and Adobe Illustrator</li> <li>• S/P2 Soft Skills</li> </ul>

## Health Assistant

Health Assistant is a three-year program where students will be introduced to the field of health care with an emphasis on direct patient care. Instructional areas will include: anatomy; physiology; medical terminology; infection control; emergency procedures; patient care; and technological advancements

in patient care. The expanded overview of the healthcare field allows students to explore, refine, and choose an area of specialization in health care after field trips, job shadowing experiences, and clinical rotations are taken. Students also have the opportunity to earn college credits though Butler County Community College.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>	<b>Accreditations</b>
<ul style="list-style-type: none"> <li>• BLS Healthcare Provider/American Heart Association</li> <li>• Heartsaver First Aid/American Heart Association</li> <li>• Medical Assisting Clinical and Clerical/American Medical Certification Association</li> <li>• Patient Care Technician/American Medical Certification Association</li> <li>• Certified Pharmacy Technician (CPhT)/National Healthcareer Association</li> <li>• Personal Care Home Direct Care Staff Certificate/Pennsylvania Department of Human Services</li> <li>• Billing and Coding Specialist/American Medical Certification Association</li> <li>• OSHA Occ Safety and Health Admin/(OSHA)</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Health Feeding Assistant</li> <li>• National Restaurant Association Educational Foundation Nutrition</li> <li>• Dean Vaughn Medical Terminology</li> <li>• American Medical Certification Association               <ul style="list-style-type: none"> <li>○ Nursing Assistant</li> <li>○ Medical Administrative Assistant</li> </ul> </li> <li>• S/P2 Soft Skills</li> </ul>	<ul style="list-style-type: none"> <li>• American Medical Certification Association</li> <li>• National Healthcare Association</li> </ul>

## Heavy Equipment Repair

Heavy Equipment Repair is a three-year program where students will be introduced to maintenance and repair of medium/heavy duty trucks and construction equipment using state of the art mobile truck lifts and computer diagnostic software. Students will be given the opportunity to study a variety of repair

scenarios on equipment, diesel and gasoline engine, transmissions, drivelines, differentials, steering and brake systems, as well as electrical, pneumatic, and hydraulic systems through both in-class learning and hand-on experience.

<b>Certifications</b> <b>Industry Recognized/Providers</b>
<ul style="list-style-type: none"> <li>• Section 609 Certification for Refrigerant Recycling and Recovery/Mobile Air Conditioning Society Worldwide</li> <li>• Certified Safety Inspector, Cat I/PA Department of Transportation</li> <li>• Certified Safety Inspector, Cat III/PA Department of Transportation</li> <li>• S/P2 Heavy Duty/S/P2</li> <li>• S/P2 Safety and Pollution Prevention/S/P2</li> </ul>

## Machine Technology

Machine Technology is a three-year program where students will be introduced to the skills used in the precision metalworking industry. Students will be instructed on how to develop a process plan, how to produce and/or repair parts, how parts fit and work together, how to use a variety of metal working equipment, how to program and produce products on the computer numerical controlled (CNC) machines, and how to make accurate quality control inspections. Skills obtained in this area can secure a high-paying career in manufacturing as well as transfer into four-year college engineering degrees. Machine Technology offers ten nationally recognized credentials through the National Institute for Metalworking Skills (NIMS) as well as up to 15 college credits from the Butler County Community College.

<b>Certifications</b> <b>Industry Recognized/Providers</b>
<ul style="list-style-type: none"> <li>• NIMS CNC Milling: Programming Setup &amp; Operations/National Institute for Metalworking Skills, Inc</li> <li>• NIMS CNC Turning: Programming Setup &amp; Operations/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I CNC Milling/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I CNC Turning/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I Manual Drill Press Operations/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I Manual Milling/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I Manual Surface Grinding/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I Manual Turning Between</li> <li>• Centers/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I Manual Turning with Chucking/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I Measurement, Materials and Safety/ National Institute for Metalworking Skills, Inc</li> <li>• NIMS Machining Level I Job Planning, Benchwork, Layout/ National Institute for Metalworking Skills, Inc</li> </ul>

## Protective Services

Protective Services is a three-year program where students will acquire knowledge and skills from the public safety areas of firefighting, emergency medical services, vehicle, rope, and confined space rescue, and law enforcement. Students can expect to receive instruction, participate in practical applications and situational learning experiences; and prepare to test for national, state, and local

certifications. Through exploration and physical practice of skills presented in the curriculum, students can refine personal career opportunities and choose a specialization area in public safety.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>
<ul style="list-style-type: none"> <li>• BLS Healthcare Provider/American Heart Association</li> <li>• NIMS IS 100 Series/Emergency Management Institute</li> <li>• NIMS IS 200 Series/Emergency Management Institute</li> <li>• NIMS IS 700 Series/Emergency Management Institute</li> <li>• NIMS IS 800 Series/Emergency Management Institute</li> <li>• EMT/Pennsylvania Department of Health</li> <li>• Certificate of Training-Basic Rigging for Rope Rescue/Pennsylvania State Fire Academy</li> <li>• Certificate of Training-Basic Vehicle Rescue Awareness/Pennsylvania State Fire Academy</li> <li>• Certificate of Training-Basic Vehicle Rescue Operations/Pennsylvania State Fire Academy</li> <li>• Certificate of Training-Hazardous Materials First Responder Awareness/ Pennsylvania State Fire Academy</li> <li>• Certificate of Training-PA Essentials of Firefighting/ Pennsylvania State Fire Academy</li> <li>• Certificate of Training-Rope Rescue I/ Pennsylvania State Fire Academy Certificate of Training-Rope Rescue II/ Pennsylvania State Fire Academy</li> <li>• OSHA Occ Safety and Health Admin/(OSHA)</li> </ul>	<ul style="list-style-type: none"> <li>• S/P2 Soft Skills</li> </ul>

## Sports Medicine

The purpose of the Sports Medicine Program is to provide students with a strong foundation in human anatomy, physiology, and introduction to clinical rehabilitation skills. Upon completion of the 3 year program, students will be competent in assisting patients with completing their therapeutic exercise program, monitoring vitals, and demonstrating proper body mechanics for weight-lifting and supervising patient mobility. Students will learn the principles of designing exercise programs for healthy individuals and athletes and how to develop proper diets through the basic principles of nutrition. They will also learn the impact of nutrition on athletic performance and disease processes. This program will provide students the opportunity to understand the available careers in health care, along with what prerequisites are necessary for admission into a post-secondary program or for further fitness certifications.

<b>Certifications Industry Recognized/Providers</b>	<b>Certifications Additional and/or Details to Industry Recognized/Providers</b>
<ul style="list-style-type: none"> <li>• BLS Healthcare Provider/American Heart Association</li> <li>• Heartsaver First Aid/American Heart</li> </ul>	<ul style="list-style-type: none"> <li>• ACSM Personal Trainer</li> <li>• AMCA Physical Therapy Aide</li> <li>• CDC-Heads Up Concussion Training</li> </ul>

Association <ul style="list-style-type: none"> <li>OSHA Occ Safety and Health Admin (OSHA)</li> </ul>	<ul style="list-style-type: none"> <li>S/P2 Soft Skills</li> </ul>
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## Welding

Welding is a three-year program where students will be introduced to the application of technical knowledge and skills in shielded metal, gas tungsten, flux-core, and gas metal arc welding as well as mechanized and manual flame cutting and plasma cutting, along with Carbon Arc Gouging. Students learn safety practices, types and use of electrodes and welding rods, properties of metals, blueprint reading, electrical principals, welding symbols and mechanical drawing, Computer Numerical Control (CNC) programming, use of equipment for testing welds by ultrasonic methods and destruction and harness testing, visual examination of welds, use of manuals and specification charts, use of portable grinders for surface cleaning, positioning and clamping, measurement, shop math, basic fabrication skills and welding standards established by the American Welding Society and The American Petroleum Institute. Students are eligible for certification from the American Welding Society in mild steel, aluminum, and stainless steel.

Certifications Industry Recognized/Providers	Certifications Additional and/or Details to Industry Recognized/Providers
<ul style="list-style-type: none"> <li>Certified Welder/American Welding Society</li> <li>Level I-Entry Welder/American Welding Society</li> <li>Level II-Advanced Welder/American Welding Society</li> <li>S/P2 Welding/S/P2</li> </ul>	<ul style="list-style-type: none"> <li>ASME (American Society of Mechanical Engineers)</li> <li>D1.1 (Level I) <ul style="list-style-type: none"> <li>FCAW Process</li> <li>SMAW Process</li> </ul> </li> <li>ASME PLATE</li> <li>D1.5 Bridge (Level II) <ul style="list-style-type: none"> <li>FCAW Process</li> <li>SMAW Process</li> </ul> </li> <li>ASME PIPE (Level II/III)</li> <li>Schedule 80 (Uphill)</li> <li>API (American Petroleum Institute) 1104 Schedule 40 (Advanced)</li> <li>S/P2 Soft Skills</li> </ul>

## STANDARDIZED TESTING PROGRAM

Standardized testing is utilized at Karns City High School as a means of providing a better understanding of each individual student's skills and abilities. A standardized test can usually be classified as either an aptitude test or an achievement test.

APTITUDE refers to an ability to learn. Aptitude tests are designed to assess knowledge, skill, and other characteristics that predict learning success.

ACHIEVEMENT refers to the level of a student's skills and knowledge in particular areas. Achievement tests are designed to measure the progress that students have made as a result of training or learning.

Tests are considered "standardized" if the same test is given in different schools throughout the state and/or country. The scores are then based upon the average performance of the students taking the test, usually referred to as the *norm*. This allows a particular student's scores to be compared to those of other students of the same grade and/or age. These comparisons help school officials identify what a student can do, and is doing, in relation to other students. Once this information is known, the necessary steps can be taken to address areas of weakness and to develop a more appropriate educational program for each student.

Testing is a valuable educational tool which helps each of the following.

- ✓ The School: to identify strengths and weaknesses in its educational program.
- ✓ The Student: to identify needs and abilities in order to be able to select an educational program to meet those needs.
- ✓ The Parents: to obtain a better understanding of their child's ability and performance in school.

It is important to remember that while tests are designed to measure certain things, they do not measure everything. Test scores by themselves do not provide a complete assessment of an individual as a student or as a person. This can only be accomplished when test results are combined with other evaluative measures and information about an individual student.

## STANDARDIZED TESTING GLOSSARY

**RAW SCORE:** A score based on the number of correct answers or, in some tests, the number of correct responses minus a fraction of the incorrect ones.

**PERCENTILE RANK:** A number indicating where the student placed in relation to others. A Percentile Rank of 75, means that the student did as well as or better than 75% of a specified group of students and not as well as 25% of the group. The comparisons can be made with others taking the same test or with others in the same age group or grade across the nation.

**SCORE SCALE:** The range of scores given on any test.

**GRADE EQUIVALENT SCORE:** A numerical designation used to describe a student's achievement level in terms of grade and month.

**STANINE:** A stanine is a score on a nine-unit scale from 1 to 9, where 1 is the lowest.

Test results should be used along with other evaluative measures to understand a student's individual strengths and weaknesses as related to course selection and career planning.

## STANDARDIZED TEST DESCRIPTION AND SCHEDULE

<u>GRADE</u>	<u>TEST</u>	<u>DESCRIPTION OF TEST</u>
7-11	<i>Classroom Diagnostic Test (CDT)</i>	The Pennsylvania Classroom Diagnostic Tools (CDT) is a set of online assessments, divided by content area, designed to provide diagnostic information in order to guide instruction and remediation. The CDT reporting system is fully integrated in the Standards Aligned System (SAS). It assists educators in identifying student academic strengths, and areas in need of improvement, by providing links to classroom resources. The diagnostic reports feature easy-to-follow links to targeted curricular resources and materials, including units and lesson plans found within the SAS system.
9-11 Grade 7 and 8 Algebra Students	<i>Keystone Exams</i>	The Keystone Exams are end-of-course assessments designed to assess proficiency in the subject areas of Algebra I, Algebra II, Geometry, Literature, English Composition, Biology, Chemistry, U.S. History, World History, and Civics and Government. The Keystone Exams are one component of Pennsylvania's new system of high school graduation requirements. Keystone Exams will help school districts guide students toward meeting state standards. Beginning with the class of 2023, all students will be required to pass the Keystone Exams in Algebra I, Biology and Literature in order to graduate. Additional Keystone Exams may be required by the Commonwealth of Pennsylvania. Time tables will be communicated when made available.
10-11	<i>Preliminary Scholastic Assessment Test (PSAT/NMSQT)</i>	A multiple choice test that measures critical reading skills, mathematical reasoning abilities, and writing skills important in doing college level work. <b><i>(Administered only once during the year in October at KCHS.)</i></b>
10	<i>ASVAB (Armed Services Vocational Aptitude Battery)</i>	This battery of tests is designed to measure an individual's vocational aptitude. It is utilized in conjunction with an interest inventory and the Occu find to help students explore career options based on their aptitudes and interests.

## OPTIONAL STANDARDIZED TESTS: DESCRIPTIONS AND SCHEDULE

<u>GRADE</u>	<u>TEST</u>	<u>DESCRIPTION OF TEST</u>
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11	<i>Preliminary Scholastic Assessment Test (PSAT/NMSQT)</i>	A multiple choice test that measures critical reading skills, mathematical reasoning abilities, and writing skills important in doing college level work. <b><i>(Administered only once during the year in October at KCHS.)</i></b>
11 - 12	<i>Scholastic Assessment Test (SAT)</i>	that measures the critical reading skills and mathematical abilities that potential college bound students have mastered. The test is administered seven times throughout the year. <b><i>(The Karns City High School is a testing location)</i></b>
11 - 12	<i>American College Test (ACT)</i>	A three hour multiple choice test, designed to measure skills and abilities that correlate to success in college. There is an optional writing component offered. The test measures four different areas: English Usage, Mathematics, Reading, and Natural Sciences. It is administered six times throughout the year. <b><i>(Karns City is not a testing site.)</i></b>
12	<i>ASVAB (Armed Services Vocational Aptitude Battery)</i>	This battery of tests is designed to measure an individual's vocational aptitude. It is utilized in conjunction with an interest inventory and the Occu-find to help students explore career options based on their aptitudes and interests.

## ENGLISH AS A SECOND LANGUAGE PROGRAM (ESL)

In accordance with our school district mission to equip “all students” for their futures, the Karns City School District shall provide an appropriate planned instructional program for identified students whose primary home language is not English. The purpose of the program is to increase the English Language Proficiency of eligible students so that they can attain the academic standards adopted by the School Board and achieve academic success.

## CHAPTER 16 PROGRAM

Gifted Support Services are based on both state and federal regulations and complement the comprehensive curriculum the district offers. Gifted support does not replace the regular school experience, but provides special enrichment and/or acceleration.

Each student's schedule is individualized with regards to honors and advanced placement courses offered by the district. Students also have the opportunity to participate in academic competitions, field



trips, and meet with a gifted support teacher in order to work on individual goals set in the Gifted Individualized Education Plan (GIEP).

## **SPECIAL EDUCATION PROGRAMS**

**State law governs placement for special education programs.**

**Learning Support:** State law recognizes Learning Support as a service for students whose primary identified need is academic learning. The Learning Support Services include classes for students with an identified disability.

Identified students receive learning support services as needed to aid them in the regular curriculum. This is accomplished through additional instruction, individual help on assignments and oral testing. This program also offers credit in regular classes and adapts regular curriculum courses to meet the appropriate needs of the students. Instruction is individualized according to their Individualized Education Plan (IEP).

**Emotional Support:** State law recognizes Emotional Support as services for students whose primary need is emotional and behavioral support. According to the Special Education Standard 342.1 and IDEA, a Serious Emotional Disturbance is:

A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree the condition adversely affects educational performance:

1. An inability to learn which cannot be explained by intellectual, sensory or health factors.
2. An inability to build or maintain interpersonal relationships with peers and teachers.
3. Inappropriate types of behavior or feelings under normal circumstances.
4. A general pervasive mood of unhappiness or depression.
5. A tendency to develop symptoms or fears associated with personal or school problems.

Determination of serious emotional disturbances shall include a full assessment and comprehensive report by a certified public school psychologist and may include the diagnosis of a licensed psychiatrist.

The Emotional Support emphasizes the general education curriculum and a behavior management program. Modifications are made on an individual basis as outlined in their IEP.

**Speech and Language Support:** Students receiving this service are exhibiting impairments of language, voice, fluency or articulation that are not due to sensory impairment or developmental delay, but which are present to such a degree that academic achievement is affected. Students are screened by a certified speech clinician who specifies the nature and degree of the impairment. Therapy programs are designed to develop students' communication skills to their fullest potential. The work in therapy sessions is either individualized or done in small groups. Therapy is structured for each student's own need and impairment.

**Additional supports and services:** Additional supports and services are determined through the evaluation or reevaluation process with recommendations provided by the multidisciplinary team. These supports can be provided by the Intermediate Unit and/or highly qualified staff. These supports include, but are not limited to: life skills, Autistic support, CBVT, Visual Support, Hearing Support, Occupational Therapy, Physical Therapy, Feeding and Swallowing, Orientation/Mobility, and Assistive Technology.

## CHAPTER 15 PROGRAM

According to Chapter 15, a school district shall provide each protected handicapped student enrolled in the District, without cost to the student or family, those related aids, services or accommodations which are needed to benefit the school program and extra-curricular activities without discrimination and to the maximum extent appropriate to the student's abilities.

The term **"protected handicapped student"** is central to Chapter 15 and distinguishes it from Chapter 14. In order to qualify as a protected handicapped student under Chapter 15, a student must:

- ✓ be of an age which public education is offered in that school district
- ✓ have a physical or mental disability which substantially limits or prohibits participation in or access to an aspect of the student's school program
- ✓ not be eligible as defined by Chapter 14 or be eligible but raise a claim of discrimination under §15.10