

# *CREEKWOOD*



## 2019-2020 Registration Guide

Tennessee Diploma Project

3499 Highway 47 North

Charlotte, TN 37036

<http://www.dcstn.org/cwhs.aspx>

#wearecreekwood

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## INTRODUCTION

The Creek Wood High School Registration Guide contains information regarding course offerings, recommended course sequence, policies, requirements, and services. This information has been prepared to enable students and parents to make informed career decisions and to prepare for the lifelong career decision-making process. Course offerings are contingent on the number of students registering for a course, budget considerations, and teacher assignments.

A strong high school background is essential for continued success in the workplace or in post-secondary studies. In selecting a curriculum, students should recognize that employment and college admissions are highly competitive. Rigor of curriculum, grade-point average, class rank, attendance, and standardized test scores are crucial factors in decisions made by employers and college admissions personnel. Therefore, it is advantageous for students to select a challenging curriculum consistent with career goals and post-secondary plans.

## TENNESSEE DIPLOMA PROJECT

The purpose of the Tennessee Diploma Project is to align our curriculum to make sure we give students, parents and teachers a pathway to reach those high standards. We want to make sure that our tests and graduation requirements reflect that our students really are prepared for workforce training or college.

The goal is to build stakeholder support for raising education standards. Both higher education and the business community play key roles. These groups feel that graduates need:

- Stronger **math and science skills**, but especially mastery of basic math; in addition, post-secondary school or work requires that students be able to think critically toward a focused solution.
- Stronger **communication skills**, including both verbal skills and writing skills
- To be **able to work in teams** to solve real world problems
- To be **able to think, apply, and use** what they know
- To have a **strong work ethic**; be at work regularly and be on time

## General Registration

1. Placement into classes will follow the procedures outlined below. All students will be placed in the classes for which they qualify based on data. Parents and students who disagree with the recommended placement and would prefer their son or daughter take a **lower** level class must sign a release form for the transfer to occur. Parents and students who disagree with the recommended placement and would prefer their son or daughter take a **higher** level class must sign a release form for the transfer to occur. Transfer to the higher level course will occur without penalty after the mid-point of the first grading period (P1) if the student has attained an average of 93 or greater in the course.
2. **A student may not request a transfer from one teacher to another.**
3. A student must be enrolled for credit in a math course through the senior year even if four credits in math have already been earned.
4. For an elective course, students should list at least five (5) alternative courses on their course request form.

## Post-Registration

1. After registration and before the end of the current school year, each student shall receive a course verification form which shows the courses selected. Parents and students are asked to review the form and make any changes or corrections and return by the stated deadline.
2. **Friday, March 15, 2019** is the deadline to request changes from one class to another. A student may not request a different class after this deadline.
3. Student schedule changes initiated by teachers/counselors may be made after the deadline due to special circumstances that make such changes necessary.

**Request for Schedule Changes.** Changes must be made in compliance with the following deadlines:

- A. Changes must be requested through the Creek Wood Counseling Department using the proper paper work.

- B. Schedule change requests will be made through the counseling department and be reviewed by an academic team comprised of a teacher, the counselor and an administrator.

***NON-DISCRIMINATION***

It is the policy of Creek Wood High School not to discriminate on the basis of sex, race, or disabilities when planning its educational program.

***INDIVIDUALIZED INSTRUCTION***

In an attempt to meet the individual needs of pupils, Creek Wood High School offers elective courses in art, business, language arts, world languages, mathematics, music, physical education, science, social studies, and career/technical subjects. Some courses offered in English, mathematics, science, and social studies are offered on an advanced level.

***CALCULATION OF GPA***

All GPA's will be calculated on a 4.0 system. For purposes of determining class rank, the numerical average of grades will be used. All numerical grades (including audited classes) earned in grades 9, 10, 11 and first semester of the 12<sup>th</sup> will be counted toward the grade-point average used to determine class rank.

\*HONORS, Dual Enrollment & ADVANCED CLASSES

English I, II, III, IV Honors	U.S. History Honors
English III, IV DE	Economics Honors
Algebra II Honors	Government Honors
Pre-Calculus Honors	Geometry Honors
Calculus AB DE	Biology II DE
Biology I Honors	Biology II Honors
U.S. History DE	Elements of Statistics DE
Spanish II Honors	Chemistry I Honors
Spanish III Honors	Chemistry II Honors

***Guidelines:*** Additional rigor points will be added each grading period and to the semester exam grade for these advanced classes. Advanced Placement will receive five (5) rigor points. Dual Enrollment courses will receive four (4) rigor points and Honors courses will receive three (3) rigor points.

***RECOMMENDATION FOR ENROLLMENT IN  
ADVANCED COURSES***

When students are registering for the second or next level of a course the following guidelines are strongly recommended:

**If the grade in the first level or prerequisite course is**

**A or B**, the next level is strongly recommended;

**C**, the next level is recommended with reservations;

**D**, the next level is strongly discouraged since needed skills for more advanced study in that area may be lacking.

***GRADUATION REQUIREMENTS***

All State of Tennessee and Creek Wood graduation requirements must be completed in order to participate in commencement exercises. To meet

state and local requirements for graduation, all students shall have attained an approved attendance, conduct, and subject matter record which covers a planned program of education.

As a strategy for assessing student readiness for postsecondary education, every student enrolled in a Tennessee public school during their eleventh (11th) grade year shall take either the ACT or SAT. To receive a regular high school diploma, all students enrolled in a Tennessee public school during their eleventh (11th) grade year must take either the ACT or SAT.

United States Civics Test- Beginning January 1, 2017, all high school students shall be given a United States civics test. All students must take this test to be awarded a diploma.

***STATE OF TENNESSEE GRADUATION  
REQUIREMENTS***

**1. A diploma of Specialized Education may be awarded to students with disabilities at the end of their fourth year of high school, who (1) have not met the requirements for a high school diploma, (2) have satisfactorily completed an individualized education program, and (3) have satisfactory records of attendance and conduct. Students who obtain the special education diploma may continue to work towards the high school diploma through the end of the school year in which they turn twenty-two years old.**

**2. An occupational diploma may be awarded to students with disabilities at the end of their fourth year of high school who have (1) not met the requirements for a high school diploma, (2) have satisfactorily completed an individualized education program, (3) have satisfactory records of attendance and conduct, (4) have completed the occupational diploma Skills, Knowledge, and Experience Mastery Assessment (SKEMA) created by the Tennessee Department of Education, and (5) have completed two (2) years of paid or non-paid work experience. The determination that an occupational diploma is the goal for a student with a disability will be made at the conclusion of the student's tenth (10th) grade year or two (2) academic years prior to the expected graduation date. Students who obtain the occupational diploma may continue to work towards the high school diploma through the end of the school year in which they turn twenty-two (22) years old.**

**3. The high school diploma will be awarded to students who (1) earn the specified 22 units of credit, and (2) have satisfactory records of attendance and conduct.**

**High School Diploma**

<b>Math *</b>	4 credits including Algebra I and II, Geometry or its equivalent, and a fourth higher level course
<b>Science **</b>	3 credits including Biology, Chemistry or Physics, and a third lab course
<b>English</b>	4 credits
<b>Social Studies ***</b>	3 credits
<b>Physical Education and Wellness</b>	1.5 credits
<b>Personal Finance</b>	0.5 credits
<b>Foreign Language ****</b>	2 credits
<b>Fine Arts ****</b>	1 credit
<b>Elective Focus Area</b>	3 credits (see last page)
<b>Total Credits</b>	<b>22 credits</b>

\* Students shall be required to achieve, by the time they graduate, at least the following: Algebra I, Geometry, and Algebra II (or the equivalents) plus one additional mathematics course beyond Algebra II. All students will be enrolled in a math class each year. Students with qualifying disabilities as documented in the individualized education program shall be required to achieve at least Algebra I and Geometry (or the equivalent).

\*\* Students shall be required to achieve, by the time they graduate, at least Biology I and either Chemistry or Physics plus another laboratory science. Students with qualifying disabilities as documented in the individualized education program shall be required to achieve at least Biology IA, Biology IB, and one other lab science credit. The required number of credits in science will be achieved through strategies such as, but not limited to, increased time, appropriate methodologies, and accommodations as determined by the IEP team.

\*\*\*The social studies curriculum shall include United States History, World History/World Geography, Economics, and Government.

\*\*\*\*In exceptional circumstances, schools may waive the world language and fine art requirement for students who are not planning to attend a university. Students must expand and enhance their elective focus.

#### **Graduation with Honors and Distinction.**

1. Students who score at or above all of the subject area readiness benchmarks on the ACT or equivalent score on the SAT will graduate with honors.

2. Students will be recognized as graduating with “distinction” by attaining a B average and completing at least one of the following:

- (i). Earn a nationally recognized industry certification.
- (ii). Participate in at least one of the Governor’s Schools.
- (iii). Participate in one of the state’s All State musical organizations.
- (iv). Be selected as a National Merit Finalist of Semi-Finalist
- (v). Attain a score of 31 or higher composite score on the ACT

- (vi). Attain a score of 3 or higher on at least two advanced placement exams.
- (vii). Successfully complete the International Baccalaureate Diploma Program.
- (viii). Earn 12 or more semester hours of transcripted postsecondary credit.

#### **Tennessee Scholars**

In today’s competitive workforce, Tennessee Scholars graduate better prepared to meet the challenges of the workplace. Graduating as a Tennessee Scholar entitles you to join the other 25,000 students who have chosen this path for graduation and have already experienced greater success after high school.

To become a Tennessee Scholar students complete a demanding high school curriculum that emphasizes “on level” and above courses in mathematics, science, social studies, language arts (English and foreign language), and computer literacy. The program also stresses the importance of attendance and dependability, and volunteerism. Students may pick up an application in the Creek Wood Counseling Center.

#### **EXAMINATIONS**

1. TN Ready testing will be conducted for students who are enrolled in the following courses, Biology I, English I, English II, Algebra I, Algebra II, Geometry and US History. This test will count as a % of the entire course, as determined by the board of education.

2. Other state mandated testing includes: ACT (11<sup>th</sup> grade).

As a strategy for assessing student readiness for postsecondary education, every student enrolled in a Tennessee public school during their eleventh (11th) grade year shall take either the ACT or SAT. To receive a regular high school diploma, all students enrolled in a Tennessee public school during their eleventh (11th) grade year must take either the ACT or SAT.

### **District Collaborative with Austin Peay State University Summer 2019- 2021 Current Sophomores/Rising Juniors**

**Whether you want to take one course or earn an associate degree, APSU has a program for you. However, rising Juniors will have an opportunity to earn up to 60 college credits while in high school. This will give them an opportunity to earn an associate degree and their high school diploma at the same time. We will have an information meeting on January 22, 2019 @ 5:30 in the commons. See your counselor for more information.**

# GENERAL COURSE DESCRIPTIONS

## **Student Government/Service Learning Program**

**1 credit: 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> .....###**

This is a required course for students recommended to student council and student government. This course will be placed in a student's schedule by their counselor upon approval to the position.

**This course meets TN Diploma Project Graduation Requirements for the Humanities Focus Elective Area.**

## **SPECIAL SENIOR ONLY COURSES**

**JOBS FOR TENNESSEE GRADUATES - 1 credit:12<sup>th</sup> .....630**

Students in this course are given the opportunity to develop skills critical to success in everyday life, in school and on the job. The curriculum includes occupation information, goal setting, study skills, human relations, and leadership development. The need for assuming responsibility for one's actions and decisions is emphasized. This course is based on a national model to assist students in graduating from high school and gaining employment or further education after graduation. Students learn career development and job attainment competencies and develop skills that employers believe are fundamental to success on the job. Follow-up and employment services are continued for twelve months following graduation.

**PERSONAL FINANCE – 1/2 credit: 12<sup>th</sup> .....335**

*Graduation Requirement for all Seniors*

This course is designed to help students understand the importance of individual choices on career and salary potential. Real world topics covered will include income, money management, spending and credit, as well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions.

**NOTE: Dual credit opportunity at Nashville State Community College for this course. See teacher for more information.**

## ***ART***

*Art Classes have a \$20.00 fee used to purchase materials.*

**Art 1: FOUNDATIONS OF STUDIO ART:.....**

**1 credit: 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> .....411**

As the foundation course, Art 1: Foundations of Studio Art is the prerequisite course for the comprehensive high school art program and fulfills the one credit Fine Arts graduation requirement. Studio problems are designed to build creative and critical thinking skills through practice in drawing, painting, printmaking, sculpture, crafts, and other art disciplines. As students gain knowledge of the ways artists find and interpret ideas, they develop an understanding and appreciation of the role of the artist in a culturally diverse world.

*This course satisfies the Fine Arts requirement.*

**ART II: DEVELOPING IDEAS IN MEDIA: 1 credit: 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup>**

**.....412**

It is recommended that students requesting to take Art II complete Art I with a B average or better. If they have a C average they must have the recommendation of the art instructor.

**ART III/IV: PORTFOLIO DEVELOPMENT AND PERSONAL**

**DIRECTIONS IN ART—1 credit: 11<sup>th</sup>, 12<sup>th</sup> .....420**

Students wishing to take Art III/IV must complete Art II with a B average or better. This course is designed to prepare students for admission to a four-year college level visual arts program, where portfolio reviews are nearly always required. Students enrolling in Art III/IV will develop a unique and personal body of work, and prepare a portfolio for admission to selective college level visual arts programs and portfolio-based competitive scholarships.

## **English Honors Program**

The English Department offers honors-level courses for each grade level of a student's high school career. These courses are designed to challenge students above and beyond the rigor provided in other English courses. The expectations for student progress and achievement in these courses are highly demanding. Acceptance in the program will be based on previous student performance as indicated by state test scores and GPA and teacher recommendation, with particular attention given to a student's writing proficiency.

There will be required Summer Reading for Honors.

To be in the Creek Wood English honors program, students will be scored on a trifold system that looks at GPA, state testing scores, and teacher recommendation based on writing abilities only. Each category breaks down as follows:

Criteria	Score Ranges	Point Values
GPA	1.0 – 4.0	4 points total
EOC/8 <sup>th</sup> grade English data	Levels 1 – 4	4 points total
Teacher recommendation based on student writing ability	Levels 1 – 4	4 points total

## ***NINTH GRADE ENGLISH***

**English I—1 credit: 9<sup>th</sup> .....112**

This freshman course includes analyzing complex texts and thinking critically with a concentration on improving language, reading, and writing skills needed for success in high school.

**English I (Honors)—1 credit: 9<sup>th</sup> ..... 114**

This course provides a more in-depth approach to the skills and content covered in the English I course.

***TENTH GRADE ENGLISH***

**English II—1 credit: 10<sup>th</sup> ..... 122**

This sophomore course continues the exploration of complex texts and critical thinking begun in English I. There is a continued focus on advancing language, reading, and writing skills, as well as the skills needed to effectively work both independently and collaboratively.

**English II (Honors)—1 credit: 10<sup>th</sup> ..... 124**

This honors course expands on the English II course curriculum and is designed to give college-bound students additional preparation for the demands of academic scholarship.

***ELEVENTH GRADE ENGLISH***

**English III—1 credit: 11<sup>th</sup> ..... 132**

This junior course focuses on increasing proficiency with complex texts, critical thinking, and composition. The course is built around a study of foundational documents and fictional and informational texts drawn from American literature. There is also an emphasis on the skills addressed on the ACT exam administered to students during the junior year

**English III (Honors)—1 credit: 11<sup>th</sup> .....134**

This honors course approaches the English III curriculum with a greater degree of challenge. There is a particular focus on college preparation and the application of academic scholarship.

**English III Dual Enrollment—1 credit: 11<sup>th</sup> .....136A/136B**

This course is English 1010 and 1020 at the college level.  
Pre-requisite: ACT Reading Sub score 19,  
English sub score of 18 and 3.0 GPA  
*Students will earn college credit from Austin Peay State University. There is a tuition fee associated with this class.*

This is a college-level composition course. The focus is on reading and analyzing complex texts as models for improving composition skills for student writing. Preparation for the ACT exam is also included in the course curriculum.

***TWELFTH-GRADE ENGLISH***

**English IV—1 credit: 12<sup>th</sup> ..... 142**

This senior-level course is focused on application of close-reading, writing, and critical thinking skills in a project-based learning context. Students are required to apply previously acquired skills in a variety of contexts. Particular attention is given to helping students demonstrate mastery of skills needed for college and career readiness.

**ENGLISH IV (HONORS)—1 credit: 12<sup>th</sup> ..... 144**

It is highly recommended that students have taken English III Honors before enrolling in English IV Honors. This course is designed for students

who have exhibited exceptional skills in the use of language and interpretation of literature. There is a strong emphasis on composition and critical reading. A dual-enrollment option for college credit will be available to students in this course. There is a list of required reading for this course.

**English IV Dual Enrollment Literature—**

**.....1 credit: 12<sup>th</sup> .....146A/146B**

This course is English 2310 and 2320 at the college level.  
Pre-requisite: ACT Reading Sub score 19,  
English sub score of 18 and 3.0 GPA.  
Pre-requisite: Completion of English 1010 and 1020  
*Students will earn college credit from Austin Peay State University. There is a tuition fee associated with this class.*

This is a college-level literature course. The focus is on reading and analyzing complex texts drawn from world literature. The course requires extensive reading and writing demonstrating strong academic scholarship.

**English IV Dual Enrollment Composition—**

**.....1 credit: 12<sup>th</sup> ....166A/166B**

This course is English 1010 and 1020 at the college level.  
Pre-requisite: ACT Reading/English sub score of 19 and 3.0 GPA  
*Students will earn college credit from Austin Peay State University. There is a tuition fee associated with this class.*

This is a college-level composition course. The focus is on reading and analyzing complex texts as models for improving composition skills for student writing.

***HUMANITIES, Elective Language Arts***

**YEARBOOK—1 credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 153**

*Make application for this class with Mrs. Cassie Wright, Room 411*  
Yearbook is an elective course that gives students marketable experience in print media publishing. This course solely works toward the completion and selling of a large finished product, Creek Wood High School's yearbook. Yearbook class is different from normal classes in high school in that it is a real business maintaining an account that must balance-out at the end of the school year. In class, students compose, construct, and edit all elements of computerized text layout, graphic art, and digital photography. Students work on many clerical operations, make announcements, maintain signs, conduct student polls, take photos, and write articles. The course in turn covers many of the content standards and objectives encountered in English courses, as does it also for objectives of art, business, and computer technology courses. Because Yearbook is a monetary business, students must cooperatively work with others, must be hardworking, and be eager to be creative. Out of class and after school, students will shoot digital photos, sell and design advertising, and distribute yearbook order forms. Students are responsible for the proper care and handling of all equipment used in the course. Pairs or groups of students should expect to spend some of their time before and after school as well working on computerized yearbook pages. This course also examines legal and ethical issues of media law

and copyright. Help capture the moments of your high school career while learning marketable skills for the workplace!

**CREATIVE WRITING—1 credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 154**

Creative writing will be an advanced course in writing for the student serious about improving writing skills in such areas as the short story, monologues, one-act plays, novellas, and more complex forms of poetry. Students will be required to keep a portfolio of their work, and some will be published in the school literary magazine. Creative Writing does not fulfill the general English requirement.

**JOURNALISM—1 credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 156**

Journalism will teach students the basics of graphics, layout, and writing for school publications. All students taking this class will be responsible for the completion of any ongoing publications. Journalism does not fulfill the general English requirement.

**SPEECH & DEBATE COMMUNICATIONS: 1 credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 451**

This course is designed to improve the communication skills of the student. This class will focus on interpersonal communication, public speaking, and debate. This course does not satisfy the Fine Arts or general English requirement.

**CONTEMPORARY ISSUES—1 credit: 9<sup>th</sup>, 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 304**

This course involves the student in a study of social, economic, political, cultural, and environmental questions and concerns in the United States and the world. At the conclusion of the course students will understand and be able to make decisions about various issues that affect their lives.

**ANCIENT WORLD HISTORY—1 credit: 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 306**

Ancient World History is a survey of the development of civilized societies in the world's major cultural regions from their beginnings to the Renaissance. The course emphasized the development of those cultures and societies that most directly provided the foundations and forms of the key cultures, societies, and development of today's society. This course will not satisfy social student's credit for graduation.

**PSYCHOLOGY – 1/2 credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 331**

Psychology is a course taught from a personal adjustment approach. Topics include personality, emotions, motivation, frustration, coping with stress, psychological disturbances, growth and development, influences on behavior and ways to improve self-image. Student will gain a better understanding of themselves, learn more about adjusting to life and improving problem solving skills.

**SOCIOLOGY: --1/2 credit: 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> 12<sup>th</sup> ..... 332**

Students study dynamics and models of individual and group relationships. The six social studies standards of essential content knowledge and for process skills are integrated for instructional purposes.

**SPANISH III Honors —1 credit: 12<sup>th</sup> ..... 173**

**Pre-requisite: Recommendation of Spanish II teacher**

Spanish III is a continuation of study and use of the language as a means of communication. The subjunctive is taught to provide fluency in the language. Spanish III is designed for those students who wish to polish fine points of grammar, build vocabulary, and increase fluency. Culture of

the Spanish speaking countries is continued with collaborative projects in the target language.

***WORLD LANGUAGES***

**SPANISH I Honors –1 credit: 10<sup>th</sup> ..... 174**

**Pre-requisite: Recommendation of English I teacher**

In Spanish I, emphasis is placed on pronunciation, vocabulary, listening comprehension, logic of the language, speaking, reading, writing, grammar, and Hispanic culture. Much drill and practice are offered the student in class through the use of audio-lingual and audio-visual materials.

**SPANISH I –1 credit: 10<sup>th</sup> 11<sup>th</sup> ..... 171**

In Spanish I, emphasis is placed on pronunciation, vocabulary, listening comprehension, logic of the language, speaking, reading, writing, grammar, and Hispanic culture. Much drill and practice are offered the student in class through the use of audio-lingual and audio-visual materials.

**SPANISH II—1 credit: 11<sup>th</sup> 12<sup>TH</sup> ..... 172**

Spanish II intensifies pronunciation, vocabulary, comprehension, logic of the language, speaking, reading, writing, grammar, and Hispanic culture. Students increase their vocabulary. This goal is achieved by much drill and practice in class through the use of audio-lingual and audio-visual materials. Culture study is enhanced through individual projects.

**SPANISH II Honors—1 credit: 11<sup>th</sup> 12<sup>TH</sup> ..... 175**

**Pre-requisite: Teacher recommendation from Spanish I**

Spanish II Honors intensifies pronunciation, vocabulary, comprehension, logic of the language, speaking, reading, writing, grammar, and Hispanic culture. Students increase their vocabulary. This goal is achieved by much drill and practice in class through the use of audio-lingual and audio-visual materials. Culture study is enhanced through individual projects.

**SPANISH III Honors —1 credit: 12<sup>th</sup> ..... 173**

**Pre-requisite: Recommendation of Spanish II teacher**

Spanish III is a continuation of study and use of the language as a means of communication. The subjunctive is taught to provide fluency in the language. Spanish III is designed for those students who wish to polish fine points of grammar, build vocabulary, and increase fluency. Culture of the Spanish speaking countries is continued with collaborative projects in the target language.



## MATHEMATICS

Recommended Math Course Sequences				
9th Grade	10th Grade	11th Grade	12th Grade	
	Algebra II Honors →	Precalculus →	Calculus AB-BC	
		Precalculus (Dual)	or AP Calculus	
Geometry Honors ↗			or Elements of Stats (Dual)	
			or Statistics	
			or Precalculus (Dual)	
	Geometry →	Algebra II →	Bridge Math	
			or SAILS Bridge Math	
Algebra 1 ↗			or Elements of Stats (Dual)	
			or Precalculus (Dual)	
			or Statistics	
	Geometry Honors ↘ →	Algebra II Honors →	Precalculus	
			or Elements of Stats (Dual)	
			or Statistics	
			or Precalculus (Dual)	

### **ALGEBRA I Honors—1 credit: 9<sup>th</sup> .....213**

***Pre-requisite: Teacher recommendation from 8<sup>th</sup> Grade Math data***

The course includes the study of the real number system, solving linear equations and inequalities, using proportional reasoning, applying elementary probability and statistics, graphing linear functions, writing linear equations and functions, solving systems of linear equations, working with polynomials, solving quadratic equations, and working with radicals.

### **ALGEBRA I – 1 credit: 9<sup>th</sup> .....214**

The course includes the study of the real number system, solving linear equations and inequalities, using proportional reasoning, applying elementary probability and statistics, graphing linear functions, writing linear equations and functions, solving systems of linear equations, working with polynomials, solving quadratic equations, and working with radicals.

### **ALGEBRA II --1 credit: 10<sup>th</sup> 11<sup>th</sup>.....215**

***Prerequisite: Algebra I***

Topics covered include number systems, relations and functions, exponents, radicals, common logarithms, quadratic relations, systems of equations and inequalities, rational expressions, and introduction to probability and statistics.

### **ALGEBRA II (HONORS)—1 credit: 10<sup>th</sup> 11<sup>th</sup> .....216**

***Prerequisite: Honors Geometry***

This course provides more in-depth study of all topics listed for Algebra II (Regular) and also includes natural logarithms, matrix algebra, and polynomial functions.

### **GEOMETRY—1 credit: 10<sup>th</sup> .....217**

***Prerequisite: Algebra I***

This course is a study of the properties, relationships, and geometric modes of thinking concerning one, two, and three-dimensional geometric figures.

### **GEOMETRY (HONORS)—1 credit: 9<sup>th</sup>, 10<sup>th</sup> .....219**

***Teacher recommendation required***

This course is a study of the properties, relationships, and geometric modes of thinking concerning one-, two-, and three-dimensional geometric figures.

### **PRE-CALCULUS (Honors)—1 credit: 11<sup>th</sup> 12<sup>th</sup> .....225**

***Prerequisite: Algebra II HON***

This course is a college-preparatory course in trigonometry, analytic geometry and functions.

### **PRE-CALCULUS (Dual Enrollment)—1 credit: 11<sup>th</sup> 12<sup>th</sup> .....226**

**This course is Math 1710 at the college level, College Algebra.**

***Prerequisite: ACT Math sub score of 19, English sub score 18, Reading Sub Score 19. Juniors can be concurrently enrolled in***

***Algebra II Honors, Pre-Calculus***

***College credit will be issued from Austin Peay State University***

***There is a tuition fee associated with this class.***

A study of functions and their representations with emphasis on the use of functions in problem-solving and modeling contexts. Topics include polynomial functions, rational functions, power and root functions, inverse functions, and systems of equations.

### **CALCULUS AB—DUAL ENROLLMENT**

#### **1 credit: 12<sup>th</sup>.....230**

**This course is Math 1910, Calculus and Analytic Geometry the college level.**

***Prerequisite: Pre-Calculus, ACT Math Sub-score of 27***

***College credit will be issued from Austin Peay State University***

***There is a tuition fee associated with this class.***

Calculus AB and Calculus BC are primarily concerned with developing the students understanding of the concepts of calculus and providing experience with its methods and applications. The courses emphasize a multi-representational approach to calculus, with concepts, results and problems being expressed graphically, numerically, analytically and verbally. The connections among these representations also are important. Calculus BC is an extension of Calculus AB rather than an enhancement; common topics require a similar depth of understanding. Both courses are intended to be challenging and demanding.

### **ELEMENTS OF STATISTICS DUAL—1 credit: 11<sup>th</sup> 12<sup>th</sup> .....233**

**This course is Math 1530, Elements of Statistics @ APSU.**

***Prerequisite: ACT Math sub score of 19, English sub score 18, Reading Sub Score 19. Juniors can be concurrently enrolled in***

***Algebra II Honors, Pre-Calculus***

***College credit will be issued from Austin Peay State University***

***There is a tuition fee associated with this class.***

Measures of central tendency and dispersion for descriptive statistics, estimations of confidence intervals for means and proportions, probability distributions, hypotheses testing, analysis of variance, the least squares



method, correlation analysis, and nonparametric methods. Applications will be explored in the fields of medicine, social science, business, politics, psychology, sports, education and the sciences.

**STATISTICS —1 credit: 11<sup>th</sup> 12<sup>th</sup> ..... 222**

Measures of central tendency and dispersion for descriptive statistics, estimations of confidence intervals for means and proportions, probability distributions, hypotheses testing, analysis of variance, the least squares method, correlation analysis, and nonparametric methods. Applications will be explored in the fields of medicine, social science, business, politics, psychology, sports, education and the sciences.

**BRIDGE MATH-- 1 credit: 12<sup>th</sup> ..... 234**

Bridge Math is a senior level Math course that is meant to bridge the gap between high school and the real world. Topics will be re-visited that were previously learned in other high school math courses.

**SAILS - BRIDGE MATH -- 1 credit: 12<sup>th</sup> ..... 234S**

*Students who have not earned a 19 on the mathematics component of the ACT by the beginning of the senior year are recommended to complete the SAILS Bridge Math course.*

Bridge Math is a senior level Math course that is meant to bridge the gap between high school and the real world. Topics will be re-visited that were previously learned in other high school math courses.

**MUSIC**

**CHORAL AUDITION—1 credit: 9<sup>th</sup>, 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 470**

*This course satisfies the Fine Art requirement.*

Choral Audition is a registration tool to simplify the process of placing students in appropriate choral groups. Choral Audition is required of all students who desire placement in a choral group. All students will be charged \$25.00 per semester.

**GUITAR LAB I—1 credit: 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> ..... 477**

**This course will satisfy the Fine Arts requirement.**

This is a course for beginning guitarists with little or no experience on the instrument. The main objective of this course is for students to gain an enhanced appreciation of music through playing the guitar. Students will learn how to read music notation, chord symbols, and tablature. A variety of genres including folk, classical, blues, pop, and rock will be explored. Access to a guitar outside the class is helpful but not necessary. This course fulfills the graduation requirement for a fine arts credit.

**GUITAR LAB II/Rock Band—1 credit: 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> ..... 479**

**This course will satisfy the Fine Arts requirement.**

**Auditions for admission are required. (see Mr. Alex Wood)**

This is a continuation of Guitar Lab I. Students must have taken and Music Lab/Guitar Lab 1 to be considered for this course. Students may also show content knowledge to the teacher to be considered if they did not take the prerequisite class. The main objective of this course is for students to gain an enhanced appreciation of music through playing the guitar. Students will learn how to read music notation, chord symbols, and tablature. A variety

of genres including folk, classical, blues, pop, and rock will be explored. Access to a guitar outside of the class is helpful but not necessary. This course fulfills the graduation requirement for a fine arts credit.

**PERCUSSION ENSEMBLE—1 credit: 9<sup>th</sup>, 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 493**

The purpose of this course is to provide musical enrichment for students. The Percussion Ensemble will study literature from all eras and provide advanced students with the skills necessary to perform at the college level. This group will perform as part of the band at festivals, public concerts, and other events requiring instrumental ensembles. Members of this group also participate in marching band. Fees will be charged for summer band camp, symphonic band camp, and trips. Students may choose band or percussion but not both. *This course will satisfy the one credit requirement for fine arts.*

**SYMPHONIC BAND 1 credit: 9<sup>th</sup>, 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 491**

*This course satisfies the Fine Art requirement.*

The purpose of this course is to provide musical enrichment for students. The band will study literature from all eras and provide advanced students with the skills necessary to perform at the college level. The band will perform at festivals, public concerts, and other events requiring instrumental ensembles. Members of this group also participate in marching band. Fees will be charged for summer camp, symphonic band camp, and trips. *This course will satisfy the one-credit requirement for a visual or performing art of the college-bound student.*

**SCIENCE**

Recommended Science Course Sequences				
9th Grade		10th Grade		11th Grade
		Chemistry		
Physical Science	→	or Physics	→	Biology I
		Physical Science	→	Chemistry
				or Physics
	↗			
Biology I Honors	→	Chemistry I Honors	→	Biology II Dual/Honors
			or	Ecology
			or	Physics
			or	Chemistry II Honors
			or	Biology II

**PHYSICAL SCIENCE – 1 credit: 9<sup>th</sup>, 10<sup>th</sup> ..... 251**

Physical Science is a *laboratory science course* that explores the relationship between matter and energy. Students investigate physical

science concepts through an inquiry-based approach. Embedded standards for Inquiry, Technology & Engineering, and Mathematics are taught in the context of the content standards for Energy, Matter, Motion, and Forces. Emphasis will be placed on preparation for Chemistry.

**BIOLOGY I—1 credit: 11<sup>th</sup> ..... 262**

Biology I is a course that introduces students to the study of living things at various levels of organization. Students will explore basic life processes. Topics covered are cells and cell processes, genetics, interactions, diversity, taxonomy, ecology, biological evolution and biotechnology. Biology I should provide students with the knowledge to make informed decisions about their bodies, their health and their world.

**BIOLOGY I (HONORS)—1 credit: 9<sup>th</sup> ..... 264**

This course covers the topics of cells and cell processes, genetics, interactions, diversity, taxonomy, ecology, biological evolution and biotechnology. The class moves at a faster pace and is more in depth than Regular Biology I. Students are expected to be self-motivated and to achieve a level of mastery of the subject material. Special emphasis is placed on problem solving and student participation. A project or paper is required to earn Honors points.

**ECOLOGY – 1 credit: 11<sup>th</sup> 12<sup>th</sup> ..... 268**

Ecology is a course that introduces students to the study of the natural environment and the environmental problems that we face. Topics covered will include personal and civic responsibility, human population dynamics, natural resources, and humans' interaction with the environment. Students will be better equipped to make environmentally ethical decisions at the conclusion of this course.

**CHEMISTRY I—1 credit: 10<sup>th</sup> ..... 271**

This course is designed for students who realize that some knowledge of chemistry is vital to the consumer in our technological society. It attempts to familiarize the student with general chemical principles (such as those dealing with the re-activities of the elements and the general properties of solids, liquids, and gases) in an easier and slower fashion than Honors Chemistry. Problem solving and reasoning skills are still emphasized, and a good working knowledge of fundamental algebra is essential. Laboratory work will develop observation and interpretation skills.

**CHEMISTRY I (HONORS)—1 credit: 10<sup>th</sup> ..... 272**

*Prerequisite: Algebra I, teacher recommendation and grade of A or B in Freshmen Math class. Lab fee required.*

This course is designed for students who are interested in science or health field careers. Since it emphasizes higher-order thinking skills, it also provides excellent preparation for most college work. A challenging course, it provides a general survey of chemistry with emphasis on problem-solving and reasoning skills. The re-activities of elements will be explored as well as the general properties of solids, liquids, and gases. Laboratory work will be provided for development of technique, observational ability, and interpretation. A working knowledge of algebra is essential. A project or paper is required to earn Honors points.

**CHEMISTRY II (Honors)—1 credit: 11<sup>th</sup> 12<sup>th</sup> ..... 275**

*Prerequisite: Chemistry I*

Chemistry II is a practical, lab-based course covering applications of inorganic chemistry. The major topics will include electrochemistry, environmental chemistry (including air, water, and solid waste pollution),

nuclear chemistry, coordination chemistry, and the production and control of energy sources. Laboratory work will include the construction and testing of electrochemical cells, electroplating, synthesis of coordination compounds, and water-quality testing.

**BIOLOGY II Dual Enrollment—1 credit: 11<sup>th</sup> 12<sup>th</sup> ..... 275A/275B**

*Students will earn college credit Biology 1010/1020 from*

*Austin Peay State University*

*Prerequisites: Biology I and Chemistry. ACT Math sub score of 19, English sub score 18, Reading Sub Score 19.*

*There is a tuition fee associated with this class.*

*This course satisfies a STEM requirement.*

A course for non-science majors. Topics covered include scientific methodology, the nature of living organisms, cell structure and function, cell chemistry and division, nature of heredity and gene action, the theory of evolution and principles of ecology.

**BIOLOGY II HONORS -1 credit:11<sup>th</sup> , 12<sup>TH</sup> .....276**

*This course satisfies a STEM requirement.*

A course for non-science majors. Topics covered include scientific methodology, the nature of living organisms, cell structure and function, cell chemistry and division, nature of heredity and gene action, the theory of evolution and principles of ecology.

**PHYSICS -1 credit: 10<sup>th</sup>, 11<sup>th</sup> .....281**

It provides a general survey of physics including the areas of mechanical physics, energy, heat, light, sound, and nuclear physics. Emphasis is placed on mathematical problem-solving in the analysis of observed physical phenomenon.

**PHYSICS (Honors)-1 credit: 11<sup>th</sup> 12<sup>th</sup> .....282**

It provides a general survey of physics including the areas of mechanical physics, energy, heat, light, sound, and nuclear physics. Emphasis is placed on mathematical problem-solving in the analysis of observed physical phenomenon.

## ***SOCIAL STUDIES***

**WORLD HISTORY & Geography—1 credit: 9<sup>th</sup> ..... 302**

This course will study the history of humankind with more concentrated focus on the Renaissance to present day.

**CONTEMPORARY ISSUES—1 credit:10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> .....304**

This course involves the student in a study of social, economic, political, cultural, and environmental questions and concerns in the United States and the world. At the conclusion of the course students will understand and be able to make decisions about various issues that affect their lives.

**ANCIENT WORLD HISTORY—1 credit: 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> ..... 306**

Ancient World History is a survey of the development of civilized societies in the world's major cultural regions from their beginnings to the Renaissance. The course emphasized the development of those cultures and societies that most directly provided the foundations and forms of the key cultures, societies, and development of today's society. This course will not satisfy social student's credit for graduation.

**U.S. HISTORY & Geography --1 credit: 11<sup>th</sup> ..... 312**

This course will study the history of the United States Reconstruction to the present. Students will utilize different methods that historians use to interpret the past, including points of view and historical context. This will allow students to have a better understanding of how the past affects the present and how current decisions affect the future.

**U.S. HISTORY & Geography (HONORS)—1 credit: 11<sup>th</sup> .....313**

This course is open to juniors desiring a more demanding and in-depth treatment of the survey in United States history. The basic topic format is identical to that of the regular United States history course, but there are significant differences. A research paper is a course requirement. Testing is geared toward discussion questions and application and interpretation of factual material. Basically, the honors course is designed to be a more challenging approach to the story of United States historical development.

**UNITED STATES HISTORY Dual Enrollment —**

**.....1 credit: 11<sup>th</sup> 12<sup>th</sup> .....316A/316B**

**Pre-requisite: ACT Reading Sub score 19, English sub score of 18**

*Students will earn college credit HIST 2010/2020 from*

*Austin Peay State University*

*There is a tuition fee associated with this class.*

A survey of the social, cultural, economic, and political aspects of American life from the pre-Columbian period through the Civil War and Reconstruction. A study of the social, cultural, economic, and political aspects of American life from the Reconstruction period to the present.

**U.S. GOV & Civics —1/2 credit: 12<sup>th</sup>.....321**

United States Government provides a study of state and local governmental institutions as well as a thorough study of our national government. Emphasis is on the underlying principles, the processes involved, and the powers and people that comprise the three branches of government. Great stress is placed on the current political situation, events, and issues. Also, the historical background that has led us to where we are as a nation is examined.

**U.S. GOV & Civics (HONORS)—1/2 credit: 12<sup>th</sup> ..... 322**

Honors Government provides a more in-depth study of our national government and its institutions. At the end of the course, students will be able to recognize and analyze significant local and national political issues. Students will also be familiar with a variety of strategies for meaningful participation in the democratic process.

**ECONOMICS—1/2 credit: 12<sup>th</sup> ..... 323**

This course is a study of the market economy and the modified free enterprise system. Emphasis will be placed on the role of government and the individual in the system. Economic systems, supply and demand, business cycles, money, labor, government intervention, problems of scarcity, and international economics are some of the topics covered.

**ECONOMICS (HONORS)—1/2 credit: 12<sup>th</sup> ..... 324**

This course is geared toward those desiring a more challenging study of economic principles and for students interested in a career in the social studies. The same fundamental concepts will be covered as in the regular course but with less emphasis on consumer economics and more emphasis

on expanding skills used in college courses. Students will work beyond the classroom analyzing case studies of economic situations and keeping portfolios of current issues, interviews, and surveys.

**PSYCHOLOGY – 1/2 credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> .....331**

*This course satisfies 1/2 of a Humanities requirement.*

Psychology is a course taught from a personal adjustment approach. Topics include personality, emotions, motivation, frustration, coping with stress, psychological disturbances, growth and development, influences on behavior and ways to improve self-image. Student will gain a better understanding of themselves, learn more about adjusting to life and improving problem solving skills.

**SOCIOLOGY: --1/2 credit: 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> 12<sup>th</sup> .....332**

*This course satisfies 1/2 of a Humanities requirement.*

Students study dynamics and models of individual and group relationships. The six social studies standards of essential content knowledge and for process skills are integrated for instructional purposes.

**THEATRE ARTS**

**Theatre I—1 credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> .....461**

*This course satisfies the Fine Art requirement.*

Theatre Arts I is a beginning drama course designed to help students develop acting skills by participating in theatre games, improvisation, scenes, monologues, and productions. We will also learn about the origins of drama, study significant plays and playwrights, write original scenes, and practice voice, movement, and characterization.

**MUSICAL THEATRE -- 1credit: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> .....463**

**Auditions for admission are required. (see Mr. Zachery Richards)**

This course provides advanced training in acting, technical theatre, and other theatre arts-related topics. Students will be required to participate in performances outside the classroom.

**WELLNESS, Strength & Conditioning for Athletes, AND  
PHYSICAL EDUCATION**

**LIFETIME WELLNESS 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup> —1 credit: ..... 501**

Wellness is a new approach to the old physical education and health curricula. The approach focuses on the principles of lifetime wellness, not solely activity and sports. Hopefully, students completing this course will be better prepared to assume responsibilities for personal lifetime wellness. Lifetime wellness is a lifelong process of positive lifestyles management that seeks to combine the emotional, social, and intellectual and physical dimensions of self for a longer, more productive, and higher quality of life.

**LIFETIME SPORTS- 1/2 Credit..... 513A**

This course is designed to meet needs of all students who would like to explore lifetime sports and activities. Activities to be offered will have carry over value, affording people the opportunity for lifetime physical well-being.

**LIFETIME SPORTS- 1 credit.....513B**

This course is designed to meet needs of all students who would like to explore lifetime sports and activities. Activities to be offered will have carry over value, affording people the opportunity for lifetime physical well-being.

**Attention: Athletes may only sign up for (1) Strength/Conditioning class!**

**STRENGTH & CONDITIONING for Any Athlete—**  
**1 Credit; 9th, 10th, 11th, 12th—..... 514ATH**  
*Pre-requisite: Athletic Strength and Conditioning classes are only available to students participating in JV or Varsity school Athletic Programs.*

**STRENGTH & CONDITIONING for BASKETBALL—**  
**1 credit -..... 531**  
*Prerequisite: Approval of head coach*

**STRENGTH & CONDITIONING for BASEBALL/SOFTBALL—**  
**1 credit-..... 532**  
*Prerequisite: Approval of head coach*

**STRENGTH & CONDITIONING for JV FOOTBALL—**  
**1 credit- 9<sup>th</sup> only ..... 535**  
*Prerequisite: Approval of head coach*

**STRENGTH & CONDITIONING for Varsity FOOTBALL—**  
**1 credit: 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> ..... 536**  
*Prerequisite: Approval of head coach*

**JROTC COURSE DESCRIPTIONS**

The CWHS Junior Reserve Officer Training Corps (JROTC)  
*A Character and Leadership Development Program*

<b>Curriculum focus:</b>		
Citizenship	Language Arts Self-Regulation	
Physical Fitness	Public Speaking	
Leadership Skills	Civics	
Thinking and Reasoning	Health	
Economics	Life Skills	Geography
Life Work	Working with Others	U.S. History

**JROTC Enrollment Requirements:**  
Enrollment in this program is voluntary. Students/prospective cadets must be enrolled in and attending CWHS as a full-time student. Once enrolled, Cadets must maintain an acceptable standard of academic achievement and standing as required by the JROTC Department and CWHS. Cadets must also maintain an acceptable standard of conduct, comply with the JROTC grooming standards and be physically capable to participate in the physical education program. Cadets must agree to wear the Army JROTC uniform one school day per week.

**JROTC Leadership and Education (LET) – .....509**  
**Level 1 – 1<sup>st</sup> Year: 1 credit**  
LET 1 is the entry-level course of the Junior Reserve Officer Training Corps Program and teaches Cadets the value of citizenship, leadership service to the community, personal responsibility and a sense of accomplishment while instilling in them self-esteem, teamwork, and self-discipline. The program promotes graduation from high school by providing curriculum, Leadership and Education Training (LET), and rewarding opportunities that benefit the student, community and the nation both in the present and the future. LET 1 Cadets can expect to assume entry-level leadership positions in CWHS’s Corps of Cadets.

**JROTC Leadership and Education (LET) – .....510**  
**Level 2 – 2nd Year: 1 credit**  
*Prerequisite: Successful completion of LET Level 1*  
LET 2 of the Junior Reserve Officer Training Corps Program broadens a Cadet’s knowledge and understanding of citizenship, leadership, service to the community and personal responsibility. The curriculum expands beyond the LET 2 focus areas and includes, Health/Lifestyle Awareness, First Aid, Drug Awareness, Map Reading/Orienteering, Geography, Environmental Awareness, Citizenship Skills, and the History and Operations of the U.S. Government. LET 2 Cadets continue to build self-esteem, teamwork, and self-discipline and work to assume greater positions of responsibility as leaders in CWHS’s Corps of Cadets.

**JROTC Leadership and Education (LET) – .....511**  
**Level 3 –3rd Year: 1 credit**  
*Prerequisites: Successful completion of LET 1 and LET 2*  
LET 3 of the Junior Reserve Officer Training Corps sharpens a Cadet’s knowledge and understanding of leadership principles, planning, goal-setting, and leadership strategies, as well as decision making and problem solving skills. LET 3 Cadets develop stronger writing and presentation skills, conflict management skills and begin exploring time management, career planning and financial planning strategies. LET 3 Cadets continue to develop as leaders, both physically and mentally and work to assume greater positions of responsibility as leaders in CWHS’s Corps of Cadets.

**JROTC Leadership and Education (LET) – .....512**  
**Level 4 –4th Year: 1 credit**  
*Prerequisites: Successful completion of LET 1, LET 2 and LET 3*  
LET 4 of the Junior Reserve Officer Training Corps Program is the capstone level of a Cadet’s high school JROTC leadership and education. Cadets further expand their knowledge and understanding of leadership, leadership strategies and principles, and work to enhance their decision making and problem solving skills. LET 4 Cadets receive additional instruction in Financial Planning and develop skills in teaching and delivering instructions, to include lesson plans, presentations, and the use of Thinking Maps and Graphic Organizers. LET 4 Cadets, having benefited from 3 years of experience in the JROTC Program; usually assume the top leadership positions in the CWHS Corps of Cadets. Throughout the LET 4 year, Cadets earnestly plan and prepare for education opportunities after high school graduation.



*Do you enjoy working with plants and animals?*  
*Do you like to build things?*  
*Do you pay attention to small details?*  
*Are you good at understanding mechanics?*  
*Are you interested in medicine or dentistry?*  
*Are you fascinated by technology?*

**If you answered yes to any of these questions then a Career and Technical program  
may be just for you!**

Career and Technical courses offer students the opportunity to learn and use real-world skills in the classroom. Students will then be able to utilize these skills in the workplace after graduation, or pursue additional education and training at a post-secondary institution. Taking Career and Technical courses also gives each student a better understanding about the different career choices that are available after they complete high school. Explore a Career and Technical program and find your passion!

***Course offerings are available in the following focus areas:***

<div>1) Advanced Manufacturing Technology<div>a. Mechatronicsb. Welding</div></div> <div>2) Agriculture<div>a. Veterinary and Animal Scienceb. Horticulture Science</div></div> <div>3) Architecture and Construction<div>a. Residential and Commercial Construction</div></div> <div>4) Arts, Audio/Visual Technology &amp; Communications<div>a. Audio/Visual Production</div></div> <div>5) Business Management and Administration<div>a. Business Management</div></div>	<div>6) Education and Training<div>a. Teaching as a Profession (K-12)</div></div> <div>7) Health Science<div>a. Emergency Servicesb. Therapeutic Servicesc. Dietetics and Nutrition</div></div> <div>8) Law, Public Safety, Corrections and Security<div>a. Law Enforcement Servicesb. Fire Management Services</div></div> <div>9) Computer Science – Information Technology<div>a. Networking Systems</div></div> <div>10) Heating, Ventilation, Air Conditioning / Refrigeration</div>
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**\*\*Depending upon space availability, there will be a limited number of seats available for classes at the Tennessee College of Applied Technology. Students may have the option to attend these classes for dual credit. A complete listing of TCAT courses offered through Creek Wood High School are listed on page 19 of this registration bulletin. Arrangements must be made through the school guidance counselor. Career and Technical Student Organizations (CTSOs) are an integral part of each career course. They are designed to develop personal and leadership qualities in students. Students in career classes must adhere to safety standards developed for specific programs and must be covered by an insurance policy.**

**\*\*Nashville State Community College offers dual credit opportunities for students to receive college credit after completing a Career and Technical course. For more information about specific dual credit opportunities, see the list at the end of the Career and Technical section of this guide.**

**ADVANCED MANUFACTURING TECHNOLOGY**

**Student Organization – Skills USA**

The Mechatronics program of study is designed for students interested in becoming a mechatronics technician, electrical technician, mechanical engineering technician, robotics technician, or mechatronics engineer. Course content focuses on the components of manufacturing systems, collection and analysis of quality data, electronics, mechanics, fluid power systems, computers and control systems, and technical documentation and troubleshooting. Upon completion of this POS, students will be prepared to pursue industry certification at a technology college or more advanced coursework at a two-year or four-year postsecondary institution.

- |                         |                       |
|-------------------------|-----------------------|
| Mechatronics Engineer   | Electrical Engineer   |
| Mechatronics Technician | Automation Technician |
| Maintenance Technician  | Quality Technician    |
| Machinist               | Line Specialist       |

**MECHATRONICS  
PROGRAM OF STUDY**

**PRINCIPLES OF MANUFACTURING (5922) – 1 credit.....750**

Principles of Manufacturing is designed to provide students with exposure to various occupations and pathways in the Advanced Manufacturing career cluster, such as Machining Technology, Electromechanical Technology, Mechatronics, and Welding. Throughout the course, students will develop an understanding of the general steps involved in the manufacturing process and master the essential skills to be an effective team member in a manufacturing production setting. Course content covers basic quality principles and processes, blueprints and schematics, and systems. Upon completion of this course, proficient students will advance from this course with a nuanced understanding of how manufacturing combines design and engineering, materials science, process technology, and quality.

**MECHATRONICS I (DE 4063) –11<sup>th</sup>, 12<sup>th</sup>: 1 credit.....754**

***Prerequisite: Principles of Manufacturing***

Mechatronics I is an applied course in the manufacturing cluster for students interested in learning more about careers as a mechatronics technician, maintenance technician, electromechanical technician, and manufacturing engineer. This first of two courses covers basic electrical and mechanical components of mechatronics systems as well as their combined uses with instrument controls and embedded software designs. Upon completion of this course, proficient students are able to describe and explain basic functions of physical properties and electrical components within a mechatronic system. They can logically trace the flow of energy through a mechatronic system and can communicate this process to others. They know how to effectively use technical documentation such as data sheets, schematics, timing diagrams, and system specifications to troubleshoot basic problems with equipment. Finally, they develop strategies to identify, localize, and correct malfunctioning components and equipment.

*(This class is a required dual enrollment class through Tennessee College of Applied Technology at no cost to students.)*

**MECHATRONICS II (DE 4063) – 11<sup>th</sup>, 12<sup>th</sup>:1 credit.....755**

***Prerequisite: Principles of Manufacturing, Mechatronics I***

Mechatronics II is an advanced course in the manufacturing career cluster for students interested in learning more about such careers as mechatronics technician, maintenance technician, or electromechanical technician. Following the groundwork of mechanics and electronics laid in Mechatronics I, this course covers basics of pneumatic, electro pneumatic, and hydraulic control circuits in a complex mechatronic system. In addition, the course addresses basic digital logic and programmable logic controllers (PLCs) employed in the mechanical, electronic, and control systems in a mechatronics system. Upon completion of this course, proficient students are able to explain the inter-relationships of components and modules within a complex mechatronic system. They understand the differences between hydraulic and pneumatic fluid power and can explain the scientific principles that apply. They also use technical documentation (such as datasheets, circuit diagrams, displacement step diagrams, timing diagrams, and function charts) to troubleshoot and resolve malfunctioning pneumatic and hydraulic components and circuits. They demonstrate understanding of the role of programmable logic controllers (PLC) in mechatronic systems and the ability to write, debug, and run basic ladder logic. *(This class is a required dual enrollment class through Tennessee College of Applied Technology at no cost to students.)*

**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**

***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

## WELDING PROGRAM OF STUDY

### **PRINCIPLES OF MANUFACTURING (5922) – 1 credit.....750**

Principles of Manufacturing is designed to provide students with exposure to various occupations and pathways in the Advanced Manufacturing career cluster, such as Machining Technology, Electromechanical Technology, Mechatronics, and Welding. Throughout the course, students will develop an understanding of the general steps involved in the manufacturing process and master the essential skills to be an effective team member in a manufacturing production setting. Course content covers basic quality principles and processes, blueprints and schematics, and systems. Upon completion of this course, proficient students will advance from this course with a nuanced understanding of how manufacturing combines design and engineering, materials science, process technology, and quality.

### **WELDING I (DE 4062) – 11<sup>th</sup>, 12<sup>th</sup>: 1 credit.....729**

#### ***Prerequisite: Principles of Manufacturing***

Welding I is designed to provide students with the skills and knowledge to effectively perform cutting and welding applications used in the advanced manufacturing industry. Proficient students will develop proficiency in fundamental safety practices in welding, interpreting drawings, creating computer aided drawings, identifying and using joint designs, efficiently laying out parts for fabrication, basic shielded metal arc welding (SMAW), mechanical and thermal properties of metals, and quality control. Upon completion of this course, proficient students will understand the requirements to pursue the American Welding Society (AWS) Entry Welder qualification and examination and will be prepared to undertake more advanced welding coursework. *Due to space limitations, this class is limited to 12 students. Students must be approved by the welding instructor. (This class is a required dual enrollment class through Tennessee College of Applied Technology at no cost to students.)*

### **WELDING II (DE 4062) – 11<sup>th</sup>, 12<sup>th</sup>: 1 credit.....732**

#### ***Prerequisite: Principles of Manufacturing, Welding I***

Welding II is designed to provide students with opportunities to effectively perform cutting and welding applications of increasingly complexity used in the advanced manufacturing industry. Proficient students will build on the knowledge and skills of the Welding I course and apply them in novel environments, while learning additional welding techniques not covered in previous courses. Specifically, students will be proficient in (1) fundamental safety practices in welding, (2) gas metal arc welding (GMAW), (3) flux cored arc welding (FCAW), (4) gas tungsten arc welding (GTAW), and (5) quality control methods. Upon completion of the Welding II course, proficient students will be eligible to complete the American Welding Society (AWS) Entry Welder qualification and certification. *Due to space limitations, this class is limited to 12 students. Students must be approved by the welding instructor. (This class is a required dual enrollment class through Tennessee College of Applied Technology at no cost to students.)*

### **WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**

***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

## **AGRICULTURE**

### **Student Organization -- Future Farmers of America FFA**

This Agriculture program of study prepares students for careers in the planning, implementation, production, management, processing and/or marketing of agricultural commodities and services. This includes food, fiber, wood products, natural resources, horticulture, and other plant and animal products. It also includes related professional, technical and educational services.

Employment opportunities will continue to increase for those who provide and market an expanding array of food, forest, and veterinary medical consumer products to a growing world population. Continued globalization of the food, agricultural and natural resources system will increase opportunities for graduates who understand the socio-economic factors that define international markets. Graduates who know how to satisfy the diverse consumer needs and preferences in different cultures, and who have the language skills to communicate effectively, will have the best opportunities to be employed by the growing number of multinational businesses.

Animal breeder/Animal trainer  
Greenhouse manager  
Groundskeeper  
Fish and game warden  
Landscape Designer  
Soil Conservationist  
Animal Groomer

Farm Owner and Manager  
Water Quality Specialist  
Environmental Analyst  
Florist  
Extension Agent  
Veterinarian  
Vet Technician

## **VETERINARY AND ANIMAL SCIENCE PROGRAM OF STUDY**

### **AGRISCIENCE (5957) – 1 credit.....551**

Agriscience is an introductory laboratory science course that prepares students for biology, subsequent science and agriculture courses, and postsecondary study. This course helps students understand the important role that agricultural science and technology plays in the twenty-first century. In addition, it serves as the first course for all programs of study in the Agriculture, Food, & Natural Resources cluster. Upon completion of this course, proficient students will be prepared for success in more advanced agriculture and science coursework. This course counts as a lab science credit toward graduation requirements.

### **SMALL ANIMAL SCIENCE (5958) – 1 credit.....557**

#### ***Prerequisite: Agriscience***

Small Animal Science is an intermediate course in animal science and care for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture



professions. This course covers anatomy and physiological systems of different groups of small animals, as well as careers, leadership, and history of the industry. Upon completion of this course, proficient students will be prepared for more advanced coursework in veterinary and animal science.  
*\*Offered on alternating years. Course will be available for the 2019-20 school year*

**LARGE ANIMAL SCIENCE (6116) – 1 credit.....###**  
***Prerequisite: Agriscience***

Large Animal Science is an applied course in veterinary and animal science for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture professions. This course covers anatomy and physiological systems of different groups of large animals, as well as careers, leadership, and history of the industry. Upon completion of this course, proficient students will be prepared for success in the level-four Veterinary Science course and further postsecondary training.  
*\* Offered on alternating years. Course will be available for the 2020-21 school year.*

**VETERINARY SCIENCE (5961) – 1 credit.....556**  
***Prerequisite: Agriscience***

Veterinary Science is an advanced course in animal science and care for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture professions. This course covers principles of health and disease, basic animal care and nursing, clinical and laboratory procedures, and additional industry-related career and leadership knowledge and skills. Upon completion of this course, students will be able to pursue advanced study of veterinary science at a postsecondary institution.

**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**  
***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

**HORTICULTURE SCIENCE  
PROGRAM OF STUDY**

**AGRISCIENCE (5957) – 1 credit.....551**

Agriscience is an introductory laboratory science course that prepares students for biology, subsequent science and agriculture courses, and postsecondary study. This course helps students understand the important role that agricultural science and technology plays in the twenty-first century. In addition, it serves as the first course for all programs of study in the Agriculture, Food, & Natural Resources cluster. Upon completion of this course, proficient students will be prepared for success in more advanced agriculture and science coursework. This course counts as a lab science credit toward graduation requirements.

**LANDSCAPE AND TURF SCIENCE (5951) – 1 credit.....###**  
***Prerequisite: Agriscience***

Landscaping and Turf Science is a applied course designed to provide challenging academic standards and relevant technical knowledge and skills needed for further education and careers in landscape design, maintenance, and turf management. Content includes site analysis and planning, principles of design, and plant selection and care techniques. Upon completion of this course, proficient students will be prepared to pursue advanced study of landscaping and turf science at a postsecondary institution.

**GREENHOUSE MANAGEMENT (5954) – 1 credit.....560**  
***Prerequisite: Agriscience***

Greenhouse Management is an applied-knowledge course designed to prepare students to manage greenhouse operations. This course covers principles of greenhouse structures, plant health and growth, growing media, greenhouse crop selection and propagation, and management techniques. Upon completion of this course, proficient students will be equipped with the technical knowledge and skills needed to prepare for further education and careers in horticulture production.

**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**  
***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

**ARCHITECTURE AND CONSTRUCTION**

**Student Organization – Skills USA**

Architecture and Construction program of study prepares students for careers in designing, planning, managing, building and maintaining the building environment. People employed in this cluster work on new structures, restorations, additions, alterations and repairs.

Architecture and construction comprise one of the largest industries in the United States. Based on the latest statistics, this career cluster has 13.8 million jobs. In the next few years, many new jobs will be added and many employment opportunities will result from the need to replace experienced workers who leave jobs.

Architect  
Civil engineer  
Contractor  
Surveyor  
Construction worker

Heavy equipment operator  
Drywall installer  
Electrician  
Plumber  
Building inspector

## RESIDENTIAL AND COMMERCIAL CONSTRUCTION PROGRAM OF STUDY

### **FUNDAMENTALS OF CONSTRUCTION (6073) – 1 credit.....700**

Fundamentals of Construction is a foundational course in the Architecture & Construction cluster covering essential knowledge, skills, and concepts required for careers in construction. Upon completion of this course, proficient students will be able to describe various construction fields and outline the steps necessary to advance in specific construction careers. Students will be able to employ tools safely and interpret construction drawings to complete projects demonstrating proper measurement and application of mathematical concepts. Standards in this course also include an overview of the construction industry and an introduction to building systems and materials

**Course fee \$5.00**

### **RESIDENTIAL/COMMERCIAL CONSTRUCTION I–1 credit.....712 (6162) Required Prerequisites: Fundamentals of Construction, Algebra I**

Residential & Commercial Construction I is the second course in the Residential & Commercial Construction program of study intended to prepare students for careers in construction by developing an understanding of the different phases of a construction project from start to finish. Upon completion of this course, proficient students will be able to demonstrate knowledge and skill in the earlier phases of building construction, including site layout, foundation systems, concrete, framing systems, and electrical systems. Students will be able to perform concrete work; frame walls, ceilings, and floors of a structure; and install proper wiring while safely employing tools and interpreting construction drawings to complete projects. Emphasis is placed on demonstrating proper measurement and application of mathematical concepts. Standards in this course also include principles of the construction industry and business and project management. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study.

**Course fee \$5.00**

### **RESIDENTIAL/COMMERCIAL CONSTRUCTION 2 (6163) –1 credit.....715**

***Required Prerequisite: Residential Construction I***

Residential & Commercial Construction II is the third course in the Residential & Commercial Construction program of study intended to prepare students for careers in construction by developing an understanding of the different phases of a construction project from start to finish. Upon completion of this course, proficient students will be able to demonstrate knowledge and skill in the later phases of building construction including roofing systems, exterior finishing, stair framing systems, masonry systems, and plumbing systems. Students will be able to perform masonry work; frame roofs; install shingles on roofs; apply exterior finishes; and install proper piping for plumbing systems while safely employing tools and interpreting construction drawings to complete projects. Emphasis is placed on demonstrating proper measurement and application of mathematical concepts. Standards in this course also include an introduction to heating, ventilation, and air conditioning systems, principles of the construction industry, and business and project management. Students will continue

compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study.  
**Course fee \$5.00**

### **WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**

***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

## ***ARTS, AUDIO/VISUAL TECHNOLOGY, & COMMUNICATIONS***

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Student Organization – Technology Student Association (TSA)

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Individuals that work in the AV communications industry manufacture, sell, rent, design, install, integrate, operate, and repair the equipment of audiovisual communications. They are involved in the presentation of sound, video, and data to groups in such venues as corporate boardrooms, hotels, convention centers, classrooms, theme parks, stadiums, and museums. The major activity sectors in the AV communications industry are distributive service firms (AV dealers, rental companies, consultants, designers, and related firms), manufacturers of AV presentations and communications products, and large end-users.

Most observers expect the job growth rate within AV industries to be at 20-30 percent for the foreseeable future. In just the AV systems technician field, the industry could expect to add 20,600 jobs annually.

A/V Technician  
Sound Engineer  
Production Specialist

Video Production Assistant  
Light and Sound Technician  
A/V Installation

### **A/V PRODUCTION I (6049) – 1 credit.....740**

A/V Production I is a foundational course in the Arts, A/V Technology, & Communications cluster for students interested in A/V (audio/visual) production occupations. Upon completion of this course, proficient students will be able to explain and complete the phases of the production process including pre-production, production, and post-production. Students will establish basic skills in operating cameras, basic audio equipment, and other production equipment. Standards in this course include career exploration, an overview of the history and evolution of A/V production, and legal issues affecting A/V production. In addition, students will begin compiling artifacts for inclusion in a portfolio, which they will carry with them throughout the full sequence of courses in this program of study

**A/V PRODUCTION II (6050) – 1 credit.....741**

***Prerequisite: A/V Production I***

A/V Production II is the second course in the A/V Production program of study intended to prepare students for a careers in audio/visual production. Building on knowledge acquired in A/V Production I, this course advances technical skill in utilizing industry equipment related to lighting and audio, and it places special emphasis on the research and technical writing involved in planning productions. Upon completion of this course, proficient students will be able to plan, capture, and edit research-based productions of increasing complexity, individually and through collaboration in teams. In addition to more robust career preparation, standards in this course include an investigation of concerns affecting A/V production businesses, such as ethical and legal issues, technology, funding, and the organization of professional roles in various industries. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study.

**A/V PRODUCTION III/IV (6083) – 1 credit.....742**

***Prerequisite: A/V Production II/III***

A/V Production III is an applied-knowledge course intended to prepare students to pursue careers and postsecondary learning in audio/visual production. Students in this course will apply knowledge and skills from previous courses in the program of study to create productions both independently and in teams, with the option of participating in a work-based learning experience for additional credit. Students will use industry equipment and technology to complete all phases of the production process, including planning, coordinating, capturing, editing, and distributing productions. Standards in this course include policies and regulations, independent and collaborative productions, distribution of media, and production of live events. Students will continue compiling artifacts for inclusion in their portfolios, which they will carry with them throughout the full sequence of courses in this program of study. Upon completion of this course, proficient students will be prepared for a career in audio/visual production or to transition to a postsecondary program for further study.

**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**

***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

**BUSINESS MANAGEMENT AND ADMINISTRATION**

**Student Organization - Future Business Leaders of America FBLA**

The Business, Management and Administration program of study prepares students for careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Career opportunities are available in every sector of the

economy and require specific skills in organization, time management, customer service and communication.

The business management and administration services industry is projected to be one of the fastest growing through the year 2020. Nearly half of all jobs are in managerial and professional occupations, and nearly one-fourth of all workers are self-employed. The business management and administration services industry is one of the highest-paying industries. In the next few years, many new jobs will be added and many openings will result from the need to replace experienced workers who leave jobs.

Accountant	Management Analyst
Office Clerk	Marketing Manager
Human Resources Manager	Receptionist
Administrative Assistant	Information Systems Manager

**BUSINESS MANAGEMENT  
PROGRAM OF STUDY**

**INTRODUCTION TO BUSINESS & MARKETING – 1 credit..... 372 (5905)**

Introduction to Business and Marketing is an introductory course designed to give students an overview of the Business Management and Administration, Marketing, and Finance career clusters. The course helps students prepare for the growing complexities of the business world by examining basic principles of business, marketing, and finance in addition to exploring key aspects of leadership, ethical and social responsibilities, and careers. Students' academic skills in communications, mathematics, and economics are reinforced with activities modeled in the context of business topics. Upon completion of this course, proficient students will be equipped with the foundational skills to succeed in any of the Business, Marketing, or Finance programs of study and will be prepared to make an informed decision regarding which pathways they would like to pursue in high school.

**BUSINESS COMMUNICATIONS (5888) – 1 credit.....352**

Business Communications is a course designed to develop students' effective oral and electronic business communications skills. This course develops skills in multiple methods of communications, including social media, as well as electronic publishing, design, layout, composition, and video conferencing. Upon completion of this course, proficient students will be able to demonstrate successful styles and methods for professional business communications using the proper tools to deliver effective publications and presentations.

**BUSINESS MANAGEMENT (5889) – 1 credit.....374**

Business Management focuses on the development of the planning, organizing, leading, and controlling functions required for the production and delivery of goods and services. This applied knowledge course addresses the management role of utilizing the businesses' resources of employees, equipment, and capital to achieve an organization's goals. Students will participate in a continuing project throughout the course in which, individually or in teams, they will present recommendations to improve an existing business. Local business partnerships are encouraged

to provide resources for faculty and students. Upon completion of this course, proficient students will be able to complete a full review of an existing business and offer recommendations for improvement as would a management consultant.

**BUSINESS AND ENTREPRENEURSHIP (6159) – 2 credits.....377**  
*(Students in Entrepreneurship should have a minimum of 2 courses in their Program of Study.)* Business & Entrepreneurship Practicum is a capstone course intended to provide students with the opportunity to apply the skills and knowledge learned in previous Business and Marketing courses within a simulated startup environment or authentic business setting. The course is structured to allow students the creativity to develop, launch, and market original business ideas. It is ideal for students who wish to pursue careers as future business owners or entrepreneurs. Practicum activities can take place around student-led startups under the supervision of the instructor, or in collaboration with a local business incubator. The standards in this course can also be used to promote student participation in a work-based learning (WBL) experience through an internship or other off-campus arrangement. Upon completion of the practicum, proficient students will be prepared to further develop their business ideas into viable ventures, or continue their study at the postsecondary level.

***EDUCATION AND TRAINING***

Student Organization—Family, Career, and Community Leaders of America FCCLA

This Career Cluster prepares learners for careers in planning, managing and providing education and training services and related learning support services. Millions of people each year prepare for careers in education and training in a variety of settings that offer academic instruction, vocational and technical instruction, and other education and training services.

A growing emphasis on improving education and making it available to more Americans will increase the overall demand for workers in the Education and Training Cluster. Employers are expected to devote greater resources to job-specific training programs in response to the increasing complexity of many jobs, the aging of the work force, and technological advances that can leave employees with obsolete skills. This will result in particularly strong demand for training and development specialists across all industries.

- |                           |                   |
|---------------------------|-------------------|
| Elementary School Teacher | Child Care Worker |
| High School Teacher       | College Professor |
| School Administrator      | Physical Trainer  |
| Corporate Trainer         | Preschool Teacher |

**TEACHING AS A PROFESSION (K-12)  
PROGRAM OF STUDY**

**TEACHING AS A PROFESSION I (6010) – 1 credit.....596**  
*Prerequisite: Fundamentals of Education*  
Teaching as a Profession I (TAP I) is an intermediate course for students interested in learning more about becoming a school counselor, teacher, librarian, or speech-language pathologist. This course covers the

components of instruction, teaching strategies, types of assessments, student learning, special populations, and educational technology. Students will conduct observations of educators at work and create artifacts for a course portfolio, which will continue with them throughout the program of study. Upon completion of this course, proficient students will have a fundamental understanding of instructional strategies needed for becoming an educator.

**TEACHING AS A PROFESSION II (6125)– 1 credit.....597**  
*Prerequisite: Fundamentals of Education*  
Teaching as a Profession II (TAP II) is an applied-knowledge course for students interested in learning more about becoming a teacher, school counselor, librarian, or speech-language pathologist. This course covers classroom management, concepts of higher order thinking, differentiating instruction, and strategies of effective classroom planning. Students in this course will demonstrate their skills in laboratory settings while building a course portfolio of work, which will carry with them throughout the program of study.  
**NOTE: Dual credit opportunity at Nashville State Community College for this course. See teacher for more information.**

**TEACHING AS A PROFESSION III (6126)– 1 credit.....598**  
*Prerequisite: Teaching as a Profession II*  
*APSU Prerequisite: 3.0 GPA, 19 In English ACT, 19 in math ACT*  
*Students are required to purchase an online text.*  
Teaching as a Profession III (TAP III) is a capstone course in the Education and Training career cluster for students interested in applying the knowledge and skills learned in previous courses toward becoming a teacher, school counselor, trainer, librarian, or speech-language pathologist. The course covers classroom professionalism, ethics, policies, communications, and career requirements in education fields. In addition, students will complete an internship and continue to create artifacts for Page 2 their student portfolios. Upon completion of this course, proficient students will be prepared to pursue advanced training at a postsecondary institution.

**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**  
*Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton, room 519, for an application.*  
Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

***HEALTH SCIENCE***

Student Organization—Health Occupation Students of America - HOSA

Health Services is one of the largest industries in the country, with more than 11 million jobs, including the self-employed. The health services

industry includes establishments ranging from small-town private practice physicians who employ only one medical assistant to busy inner city hospitals that provide thousands of diverse jobs. More than half of all non-hospital health service establishments employ fewer than five workers. On the other hand, almost two-thirds of hospital employees were in establishments with more than 1,000 workers.

Wage and employment in the health services industry is projected to increase more than 25 percent through 2010, compared with an average of 16 percent for all industries. Employment growth is expected to account for about 2.8 million new jobs.

Nurse	Ultrasound Technician
Dentist	Medical records Administrator
EMT(Paramedic)	Nursing Assistant
Pharmacist	First-Responder
Health Educator	Radiology Technician

**EMERGENCY SERVICES  
PROGRAM OF STUDIES**

**HEALTH SCIENCE EDUCATION (5998) – 1 credit.....600**

Health Science Education is an introductory course designed to prepare students to pursue careers in the fields of biotechnology research, therapeutics, health informatics, diagnostics, and support services. Upon completion of this course, a proficient student will be able to identify careers in these fields, compare and contrast the features of healthcare systems, explain the legal and ethical ramifications of the healthcare setting, and begin to perform foundational healthcare skills. This course will serve as a strong foundation for all of the Health Science programs of study.

**Course fees are \$5.00**

**ANATOMY AND PHYSIOLOGY (5991) – 1 credit.....612**

***Prerequisite: Health Science Education***

Anatomy and Physiology is an upper level course designed to develop an understanding of the structures and functions of the human body, while relating those to knowledge and skills associated with pathophysiology. Upon completion of this course, proficient students will be able to (1) apply the gross anatomy from earlier courses to a deeper understanding of all body systems, (2) identify the organs and structures of the support and movement systems, (3) relate the structure and function of the communication, control, and integration system, and (4) demonstrate a professional, working understanding of the transportation, respiration, excretory, and reproduction systems.

**Course fees are \$25.00**

**EMERGENCY MEDICAL SERVICES (5995) – 1 credit.....614**

***Prerequisite: Health Science Education, Anatomy and Physiology***

Emergency Medical Services is a capstone course designed to prepare students to pursue careers in the fields of emergency medicine. Upon completion of this course, proficient students will be able to: identify careers and features of the EMS system; define the importance of workforce safety and wellness; maintain legal and ethical guidelines; correlate anatomy and physiology concepts to the patient with a medical or traumatic injury; and perform EMS skills with a high level of proficiency. If taught with an EMT

instructor, students will be given the opportunity to sit for the National Emergency Medical Responder certification. In addition, students will continue to add artifacts to a portfolio, which they will continue to build throughout the program of study. Each standard presumes that the expected knowledge and behaviors are within the scope of practice for that EMS licensure level, as defined by the National EMS Scope of Practice Model. Each competency applies to patients of all ages, unless a specific age group is identified. The standards also presume there is a progression in practice from the Emergency Medical Responder level to the Paramedic level. The descriptors used to illustrate the increasing complexity of knowledge and behaviors through the progression of licensure levels originate, in part, from the National EMS Scope of Practice Model. Note: If this course is taught for EMR certification, the program must be approved by the TN Department of Health, Office of Emergency Medical Services. Students enrolled in this course must be 17 years old before the course concludes.

**Course fees are \$25.00**

**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**

***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton or Mark Buck, for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

**DIETETICS & NUTRITION  
PROGRAM OF STUDY**

**HEALTH SCIENCE EDUCATION (5998) – 1 credit.....600**

Health Science Education is an introductory course designed to prepare students to pursue careers in the fields of biotechnology research, therapeutics, health informatics, diagnostics, and support services. Upon completion of this course, a proficient student will be able to identify careers in these fields, compare and contrast the features of healthcare systems, explain the legal and ethical ramifications of the healthcare setting, and begin to perform foundational healthcare skills. This course will serve as a strong foundation for all of the Health Science programs of study.

**Course fees are \$5.00**

**ANATOMY AND PHYSIOLOGY (5991) – 1 credit.....612**

***Prerequisite: Health Science Education***

Anatomy and Physiology is an upper level course designed to develop an understanding of the structures and functions of the human body, while relating those to knowledge and skills associated with pathophysiology. Upon completion of this course, proficient students will be able to (1) apply the gross anatomy from earlier courses to a deeper understanding of all body systems, (2) identify the organs and structures of the support and movement systems, (3) relate the structure and function of the communication, control, and integration system, and (4) demonstrate a

professional, working understanding of the transportation, respiration, excretory, and reproduction systems.  
**Course fees are \$25.00**

**NUTRITION SCIENCE AND DIET THERAPY (6007) – 1 credit 591**

***Prerequisite: Health Science, Anatomy and Physiology***

Nutrition Science and Diet Therapy is an applied knowledge course in nutrition for students interested in the role of nutrition in health and disease. Upon completion of this course, proficient students will be able to develop a nutrition care plan as part of the overall health care process, use methods for analyzing the nutritional health of a community, and understand the relationship of diet and nutrition to specific diseases. The course places emphasize on the role of diet as a contributor to disease and its role in the prevention and treatment of disease. Artifacts will be created for inclusion in a portfolio, which will continue to build throughout the program of study.

**CLINICAL INTERNSHIP (5993) – 2 credits: 12<sup>th</sup>.....621**

***Prerequisites: Students must have successfully completed a course in Rehabilitative Therapies, Medical Therapeutics, or Medical Diagnostics; must have a physical with a negative TB test; must take the HBV vaccine provided by the Board of Education; and must provide their own clinical uniforms and transportation to clinical site.***

Clinical Internship is a capstone course and work-based learning experience designed to provide students with real-world application of skills and knowledge obtained in a pre-requisite Health Science course. Upon completion of this course, proficient students will be able to pursue certification in the pre-requisite course of Cardiovascular Services or Pharmacological Science once they have graduated and reached 18 years of age. Prior to beginning work at a clinical site, students must be certified in Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR), and deemed competent in basic first aid, body mechanics, Standard Precaution guidelines, and confidentiality. Business Management & Administration concentrators may also take this course as part of a career practicum/work-based learning placement within the Health Services Administration program of study. Note: Student to teacher ratio for this course is 15:1 in a clinical setting.

**NOTE: Admission to this class is subject to junior year interview process, teacher evaluations, GPA and attendance rate. Students must maintain 90% attendance while participating in clinicals.**

**THERAPEUTIC SERVICES  
PROGRAM OF STUDY**

**HEALTH SCIENCE EDUCATION (5998) – 1 credit.....600**

Health Science Education is an introductory course designed to prepare students to pursue careers in the fields of biotechnology research, therapeutics, health informatics, diagnostics, and support services. Upon completion of this course, a proficient student will be able to identify careers in these fields, compare and contrast the features of healthcare systems, explain the legal and ethical ramifications of the healthcare setting, and begin to perform foundational healthcare skills. This course will serve as a strong foundation for all of the Health Science programs of study.

**Course fees are \$5.00**

**ANATOMY AND PHYSIOLOGY (5991) – 1 credit.....612**

***Prerequisite: Health Science Education***

Anatomy and Physiology is an upper level course designed to develop an understanding of the structures and functions of the human body, while relating those to knowledge and skills associated with pathophysiology. Upon completion of this course, proficient students will be able to (1) apply the gross anatomy from earlier courses to a deeper understanding of all body systems, (2) identify the organs and structures of the support and movement systems, (3) relate the structure and function of the communication, control, and integration system, and (4) demonstrate a professional, working understanding of the transportation, respiration, excretory, and reproduction systems.

**Course fees are \$25.00**

**MEDICAL THERAPEUTICS (5999) – 1 credit.....611**

***Prerequisite: Health Science Education***

Medical Therapeutics is an applied course designed to prepare students to pursue careers in therapeutic services. Upon completion of this course, a proficient student will be able to identify careers in therapeutics services; assess, monitor, evaluate, and report patient/client health status; and identify the purpose and components of treatments.

**CLINICAL INTERNSHIP (5993) – 2 credits: 12<sup>th</sup>.....621**

***Prerequisites: Students must have successfully completed a course in Rehabilitative Therapies, Medical Therapeutics, or Medical Diagnostics; must have a physical with a negative TB test; must take the HBV vaccine provided by the Board of Education; and must provide their own clinical uniforms and transportation to clinical site.***

Clinical Internship is a capstone course and work-based learning experience designed to provide students with real-world application of skills and knowledge obtained in a pre-requisite Health Science course. Upon completion of this course, proficient students will be able to pursue certification in the pre-requisite course of Cardiovascular Services or Pharmacological Science once they have graduated and reached 18 years of age. Prior to beginning work at a clinical site, students must be certified in Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR), and deemed competent in basic first aid, body mechanics, Standard Precaution guidelines, and confidentiality. Business Management & Administration concentrators may also take this course as part of a career practicum/work-based learning placement within the Health Services Administration program of study. Note: Student to teacher ratio for this course is 15:1 in a clinical setting.

**NOTE: Admission to this class is subject to junior year interview process, teacher evaluations, GPA and attendance rate. Students must maintain 90% attendance while participating in clinicals.**

***INFORMATION TECHNOLOGY***

**Student Organization – Skills USA**

The *Networking Systems* program is study is designed for students interested in occupations including: computer support specialists, network and computer systems administrators, computer hardware engineers, computer network architects, and information security analysts. This program of study provides students the opportunity to acquire knowledge in both theory and practical applications pertaining to hardware, operating systems, safe mode, command prompt, security, networking, printers, peripheral devices, laptops, mobile devices, troubleshooting, and customer

service management. Upon completion of the course, proficient students will have acquired skills and knowledge to install, configure, and maintain computer systems. Students will also identify types of networks, understand the layers of the open systems interconnection (OSI) model, prevent security risks, and apply troubleshooting theory to the successful execution of networking tasks. Course content covers transmission control protocol, internet protocol, wired and wireless topologies, switching and routing, network hardware, wireless networking, and network operating systems (NOS).

## **NETWORKING SYSTEMS PROGRAM OF STUDY**

### **COMPUTER SCIENCE FOUNDATIONS (6095).....380**

Computer Science Foundations (CSF) is a course intended to provide students with exposure to various information technology occupations and pathways such as Networking Systems, Coding, Web Design, and Cybersecurity. As a result, students will complete all core standards, as well as standards in two of four focus areas. Upon completion of this course, proficient students will be able to describe various information technology (IT) occupations and professional organizations. Moreover, they will be able to demonstrate logical thought processes and discuss the social, legal, and ethical issues encountered in the IT profession. Depending on the focus area, proficient students will also demonstrate an understanding of electronics and basic digital theory; project management and teamwork; client relations; causes and prevention of Internet security breaches; and writing styles appropriate for web publication. Upon completion of the CSF course, students will be prepared to make an informed decision about which Information Technology program of study to pursue.

### **COMPUTER SYSTEMS (4114).....381**

***Prerequisite: Computer Science Foundations, Algebra I***

Computer Systems is an intermediate course designed to prepare students with work-related skills and aligned certification in the information technology industry. Content provides students the opportunity to acquire knowledge in both theory and practical applications pertaining to hardware, operating systems, safe mode, command prompt, security, networking, printers, peripheral devices, laptops, mobile devices, troubleshooting, and customer service management. Upon completion of this course, proficient students will have acquired skills and knowledge to install, configure, and maintain computer systems.

### **NETWORKING (4114).....###**

***Prerequisite: Computer Systems, Algebra I***

Networking is an advanced course designed to emphasize the conceptual and practical skills necessary to design, manage, and diagnose network hardware and software. Upon completion of this course, proficient students will identify types of networks, understand the layers of the open systems interconnection (OSI) model, prevent security risks, and apply troubleshooting theory to the successful execution of networking tasks. Course content covers transmission control protocol, internet protocol, wired and wireless topologies, switching and routing, network hardware, wireless networking, and network operating systems (NOS)

***Offered in the 2020-21 school year.***

## **LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY**

Student Organization – Skills USA

The Law, Public Safety and Security Cluster helps prepare students for careers in planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

Renewed national interest in public safety and security should help expand opportunities for employment in the Law, Public Safety and Security Cluster. Numerous job openings will stem from employment growth attributable to the desire for increased corporate, industrial and homeland security. Also, a more security-conscious society and concern about drug-related crimes should contribute to the increasing demand.

Firefighter	Paralegal
Police officer	Bailiff
Corrections officer	Security guard
Lawyer	Legal clerk

## **CRIMINAL JUSTICE AND CORRECTION SERVICES PROGRAM OF STUDY**

### **CRIMINAL JUSTICE I (5987) – 1 credit.....581**

Criminal Justice I is the first course in Law Enforcement Services and the Legal and Correctional Services programs of study. It serves as a comprehensive survey of how the law enforcement, legal, and correctional systems interact with each other in the United States. Upon completion of this course, proficient students will understand the context of local, state, and federal laws, have investigative skills pertaining to basic crime scenes and incident documentation, and understand the importance of communications and professionalism in law enforcement.

### **CRIMINAL JUSTICE II (5988) – 1 credit.....582**

***Prerequisite: Criminal Justice I***

Criminal Justice II is an integrated survey of the law and justice systems for students interested in pursuing careers in law enforcement and legal services. From initial crisis scenario management to arrest, transport, trial, and corrections, procedures and laws governing the application of justice in the United States are examined in detail, with special emphasis on the best practices and professional traits required of law enforcement and legal professionals. Upon completion of this course, proficient students will be prepared for advanced work in crime scene analysis and forensic science, and have strong knowledge and skill preparation for postsecondary or career opportunities in associated fields.

### **CRIMINAL JUSTICE III - INVESTIGATIONS (5989)**

**1 credit.....583**

***Prerequisite: Criminal Justice II***

Students in this course will explore the basic processes and principles of forensic science as it relates to criminal investigation. Students will learn the importance of the identification, collection, and processing of evidence and of its contribution to the criminal investigation. Students will learn of the legal responsibilities and challenges which the forensic investigator may encounter from initial response to the court room.



**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**

***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton for an application.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

**FIRE MANAGEMENT SERVICES  
PROGRAM OF STUDY**

**FIRE SCIENCE I (4118) – 1 credit; 11<sup>th</sup>, 12<sup>th</sup> .....616**

***Prerequisite: Must be a Junior***

***Prerequisite: ACT Math sub score of 19, English sub score 18, Reading Sub Score 19, or qualifying Acuplacer score.***

In the Fire Science I course, students will be prepared with technical knowledge and skills related to firefighter safety, fire behavior, building construction guidelines, and the use of firefighting equipment. Upon completion of this course, proficient students will be able to correctly demonstrate skills associated with ropes, ladders, and fire hoses in a non-live fire situation. Standards in this course are aligned with National Fire Academy Fire and Emergency Services (FESHE) model.

**FIRE SCIENCE II (4118) – 1 credit; 11<sup>th</sup>, 12<sup>th</sup> .....617**

***Prerequisite: Fire Science I, Must be a Junior***

***Prerequisite: ACT Math sub score of 19, English sub score 18, Reading Sub Score 19 or qualifying Acuplacer score.***

Students in the Fire Science II course continue to acquire the skills and knowledge needed to pursue a career as a Firefighter I. Those students who complete this course will be prepared, after graduation, to further their instruction at a training facility. Upon completion of this course, proficient students will be able to correctly demonstrate skills associated with ventilation, water supply, fire hose and fire streams in a non-live fire situation, and safety with hazardous materials. Standards in this course are aligned with National Fire Academy Fire and Emergency Services (FESHE) model.

**WORK-BASED LEARNING (6105) – 2 credits: 12<sup>th</sup> .....550**

***Prerequisite: Must have at least 2 credits in the program area and meet the selection criteria as stated on the Work-Based Learning application. Please see Veronica Walton or Mark Buck for an application.***

***Work Based learning will be a requirement for the Fire Management Services POS.***

Work-Based Learning: Career Practicum is a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen

classroom work and support the development of postsecondary and career readiness knowledge and skills.

**EMERGENCY MEDICAL SERVICES (5995) – 1 credit.....614**

***Prerequisite: Health Science Education, Anatomy and Physiology***

***This course is provided as an enhancement course for the Fire Management Services POS.***

Emergency Medical Services is a capstone course designed to prepare students to pursue careers in the fields of emergency medicine. Upon completion of this course, proficient students will be able to: identify careers and features of the EMS system; define the importance of workforce safety and wellness; maintain legal and ethical guidelines; correlate anatomy and physiology concepts to the patient with a medical or traumatic injury; and perform EMS skills with a high level of proficiency. If taught with an EMT instructor, students will be given the opportunity to sit for the National Emergency Medical Responder certification. In addition, students will continue to add artifacts to a portfolio, which they will continue to build throughout the program of study. Each standard presumes that the expected knowledge and behaviors are within the scope of practice for that EMS licensure level, as defined by the National EMS Scope of Practice Model. Each competency applies to patients of all ages, unless a specific age group is identified. The standards also presume there is a progression in practice from the Emergency Medical Responder level to the Paramedic level. The descriptors used to illustrate the increasing complexity of knowledge and behaviors through the progression of licensure levels originate, in part, from the National EMS Scope of Practice Model. Note: If this course is taught for EMR certification, the program must be approved by the TN Department of Health, Office of Emergency Medical Services. Students enrolled in this course must be 17 years old before the course concludes.

**Course fees are \$25.00**

**EARLY COLLEGE**

**HEATING, VENTILATION, AIR CONDITIONING /  
REFRIGERATION PROGRAM OF STUDY**

**Heating, Ventilation, Air Conditioning/Refrigeration / Estimated length: 20 months: (4074) - 3 credits; 11<sup>th</sup>, 12<sup>th</sup> .....696**

Classroom and shop learning experiences include theory, application, and service of air conditioning and refrigeration equipment. Included are print reading, basic electronics, pneumatics, math, programmable controllers, refrigerant containment certification (EPA certification), and heat pump technology. Upon completion, students are prepared to enter jobs as service technicians in a variety of domestic, industrial, and commercial settings. Students will be required to provide their own transportation to TCAT-Dickson. Class will run from 2:30-5:30. Students will be allowed to start school later and end early to equalize time. Students should be able to achieve 500+ hours / year.

<b>Program Credentials</b>	<b>Hours</b>	<b>Credential</b>
<u>HVAC Mechanic Helper</u>	432	Certificate
<u>Domestic Unit Repair</u>	864	Certificate
<u>HVAC Technician</u>	1296	Diploma
<u>HVAC / Refrigeration Technician</u>	1728	Diploma

