

CREEKWOOD



2020-2021 Registration Guide

Tennessee Diploma Project

3499 Highway 47 North

Charlotte, TN 37036

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

#wearecreekwood

The goal is to build stakeholder support for raising education standards. Post-high school 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

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- 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 with course request five (5) days prior to the first grading period (JP) 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.

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.

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 13, 2020** 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 12th 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

TVAAS data (historical student state test scores) and teacher recommendation are used in placement of most Honors courses.

For Dual Enrollment courses, please see specific requirements listed under each course in this guide.

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

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

* 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 transcribed 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 (11th 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 2020- 2022 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 23, 2020 @ 5:30 in the commons. See your counselor for more information.

Student Government/Service Learning Program

1 credit: 9th, 10th, 11th, 12th###

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:12th... C25H09

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: 12thG04H36

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: 9th-10th 11th 12thG05H08

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

GENERAL COURSE DESCRIPTIONS

G05H09

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: 11th- 12thG05H10

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 th 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: 9thG01H09

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: 9thG01H09-H

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: 10thG01H10

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: 10thG01H10-H

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: 11thG01H11

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: 11thG01H11-H

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: 11th

.....G01H30-11, G01H31-11

This course is English 1010 and 1020 at the college level. In addition to meeting the APSU Dual Enrollment admissions criteria (3.0 HS GPA or 21 ACT Composite), this course requires Reading sub score of 19 and English sub score of 18.

If you score 28-30 on the English section of the ACT, APSU will award credit for ENGL 1010. If you score 31-36 on the English section of the ACT, APSU will award credit for ENGL 1010 and 1020. See your counselor if you have additional questions.

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: 12thG01H13

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: 12thG01H13-H

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/Technical Writing—1 credit: 12thG01H34, G01H35

Pre-requisite: Completion of English 1010 and 1020. This is ENGL 2330 and ENGL 1100 at the college level. In addition to meeting the APSU Dual Enrollment admissions criteria (3.0 HS GPA or 21 ACT Composite), ACT Reading sub score 19 and English sub score 18 or 31 or higher on the English section of the ACT.

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: 12th
.....G01H30-12, G01H31-12

This course is English 1010 and 1020 at the college level.

In addition to meeting the APSU Dual Enrollment admissions criteria (3.0 HS GPA or 21 ACT Composite), this course requires Reading sub score of 19 and English sub score of 18. If you score 28-30 on the English section of the ACT, APSU will award credit for ENGL 1010. If you score 31-36 on the English section of the ACT, APSU will award credit for ENGL 1010 and 1020. See your counselor if you have additional questions.

*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: 9th 10th 11th 12th.....G01H15

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—1/2 credit: 10th 11th 12th..... G01H16

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.

ADVANCED CREATIVE WRITING—1/2 credit: 10th 11th
12th.....G01H00

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.

CONTEMPORARY ISSUES—1 credit:9th, 10th 11th-12th ...G04H17

Offered in alternating years.

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: 10th 11th 12th

Offered in alternating years.

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: 9th 10th 11th 12th **G04H15**

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: 9th, 10th, 11th 12th **G04H14**

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: 12th **G24H06**

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: 10th

G24H04-H

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: 10th–11th

G24H04

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: 11th 12TH

G24H05

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: 11th 12TH

G24H05-H

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: 12th

G24H06

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	
Geometry Honors		Precalculus (Dual)	or AP Calculus	
			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: 9th

G02H00-H

Pre-requisite: Teacher recommendation from 8th 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: 9th

G02H00

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: 10th 11th

G02H05

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: 10th– 11th

G02H05-H

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: 10th

.....G02H11

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: 9th-10thG02H11-H

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: 11th- 12th G02H23

Prerequisite: Algebra II HON

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

PRE-CALCULUS (Dual Enrollment)—1 credit: 11th- 12thG02H48

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

Prerequisite: In addition to meeting the APSU Dual Enrollment admissions criteria (3.0 HS GPA or 21 ACT Composite), this course only requires the ACT Math sub score of 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: 12thG02H51

This course is Math 1910, Calculus and Analytic Geometry the college level. *In addition to meeting the APSU Dual Enrollment admissions criteria, this course requires MATH 1710 and 1720, OR MATH 1730, OR High school Algebra II, pre-calculus, and 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 is 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. This course are intended to be challenging and demanding.

ELEMENTS OF STATISTICS DUAL—1 credit: 11th- 12thG02H49

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: 11th- 12th G02H37

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: 12th G02H41

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: 12th G02H41-S

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: 9th-10th 11th 12thG05X12

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: 9th, 10th, 11th, 12thG05HA9

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: 9th, 10th, 11th, 12th
.....G05X14-RB

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: 9th-10th 11th 12th **G05502**

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: 9th-10th 11th 12th **G05X14**

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.

SCIENCE

Recommended Science Course Sequences			
9th Grade	10th Grade	11th Grade	
Physical Science	<input type="checkbox"/>	Chemistry or Physics	<input type="checkbox"/>
		Physical Science	<input type="checkbox"/>
	<input type="checkbox"/>		
Biology I Honors	<input type="checkbox"/>	Chemistry I Honors	<input type="checkbox"/>
			or Ecology
			or Physics
			or Chemistry II Honors
			or Biology II

PHYSICAL SCIENCE – 1 credit: 9th, 10th
.....G03H00

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.

PHYSICAL SCIENCE Hon – 1 credit: 9th, 10thG03H00-H

Pre-requisite: Teacher recommendation from 8th Grade Math data

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: 11th **G03H03**

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: 9th **G03H03-H**

Pre-requisite: Teacher recommendation from 8th Grade Math data, Alg I

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: 11th-12th **G03H32**

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: 10th **G03H12**

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: 10th G03H12-H

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.

BIOLOGY II Dual Enrollment—1 credit: 11th- 12th G03H45, G03H46

Students will earn college credit Biology 1010/1020 from Austin Peay State University

Prerequisites: Biology I and Chemistry. In addition to meeting the APSU Dual Enrollment admissions criteria (3.0 HS GPA or 21 ACT Composite), this course requires ACT Math sub score of 19, Reading sub score of 19 and English sub score of 18.

There is a tuition and lab fee associated with this class.

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: 11th, 12th G03H09

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 (Honors)-1 credit: 11th 12th G03H20-H

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: 9th G04H10

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

CONTEMPORARY ISSUES—1 credit: 9th, 10th 11th—12thG04H17

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: 10th 11th 12th

Offered in alternating years.

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: 11th G04H11

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: 11thG04H11-H

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: 11th-12thG04H48, G04H49

Pre-requisite: Students must meet the APSU Dual Enrollment admissions criteria of 3.0 HS GPA or 21 ACT Composite.

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: 12thG04H12

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: 12th **G04H12-H**

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: 12th **G04H13**

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: 12th **G04H13-H**

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: 9th 10th 11th 12th **G04H15**

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: 9th, 10th, 11th 12th **G04H14**

This course satisfies ½ 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: 9th 10th 11th 12th **G05H16**

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 -- 1 credit: 9th 10th 11th 12th.....G05H16-MT

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 9th 10th 11th 12th —1 credit: **G08H02**

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..... G08H00

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.....G08H00-1

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—.....G08H01

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 - G08H01-BB

Prerequisite: Approval of head coach

STRENGTH & CONDITIONING for BASEBALL/SOFTBALL—

1 credit- G08H01-BS

Prerequisite: Approval of head coach

STRENGTH & CONDITIONING for JV FOOTBALL—

1 credit- 9th only G08H01-JVF

Prerequisite: Approval of head coach

STRENGTH & CONDITIONING for Varsity FOOTBALL—

1 credit: 10th, 11th, 12th G08H01-VF

Prerequisite: Approval of head coach

JROTC COURSE DESCRIPTIONS

The CWHS Junior Reserve Officer Training Corps (JROTC)

A Character and Leadership Development Program

Curriculum focus:

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.

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.

JROTC Leadership and Education (LET) –G08H04

Level 1 – 1st 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) –G08H05

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) –G08H06

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) –G08H07

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



- 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:

<ul style="list-style-type: none"> 1) Advanced Manufacturing Technology <ul style="list-style-type: none"> a. Mechatronics b. Welding 2) Agriculture <ul style="list-style-type: none"> a. Veterinary and Animal Science b. Horticulture Science 3) Architecture and Construction <ul style="list-style-type: none"> a. Residential and Commercial Construction 4) Arts, Audio/Visual Technology & Communications <ul style="list-style-type: none"> a. Audio/Visual Production 5) Business Management and Administration <ul style="list-style-type: none"> a. Business Management 	<ul style="list-style-type: none"> 6) Education and Training <ul style="list-style-type: none"> a. Teaching as a Profession (K-12) 7) Health Science <ul style="list-style-type: none"> a. Emergency Services b. Therapeutic Services 8) Law, Public Safety, Corrections and Security <ul style="list-style-type: none"> a. Law Enforcement Services b. Fire Management Services 9) Computer Science – Information Technology <ul style="list-style-type: none"> a. Networking Systems 10) Heating, Ventilation, Air Conditioning / Refrigeration
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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. Arrangements must be made through the school guidance counselor.**

****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 – 1 credit.....C13H05

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 –11th, 12th: 1 credit.....C13H04-M1

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 an optional dual enrollment class through Tennessee College of Applied Technology at no cost to students.)

MECHATRONICS II DE – 11th, 12th:1 credit.....C13H04-M2

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 – 2 credits: 12thC20H17

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 – 1 credit.....C13H05

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 – 11th, 12th: 1 credit.....C13H03

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 – 11th, 12th: 1 credit.....C13H18

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 – 2 credits: 12thC20H17

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.

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|-------------------------------|--------------------------|
| Animal breeder/Animal trainer | Farm Owner and Manager |
| Greenhouse manager | Water Quality Specialist |
| Groundskeeper | Environmental Analyst |
| Fish and game warden | Florist |
| Landscape Designer | Extension Agent |
| Soil Conservationist | Veterinarian |
| Animal Groomer | Vet Technician |

**VETERINARY AND ANIMAL SCIENCE
PROGRAM OF STUDY**

AGRISCIENCE – 1 credit.....C18H19

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 – 1 credit.....

Prerequisite: Agriscience * Offered on alternating years

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.

LARGE ANIMAL SCIENCE – 1 credit.....C18H27

Prerequisite: Agriscience * Offered on alternating years

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 as a Dual Enrollment Credit Course through MTSU Agriculture Department.

VETERINARY SCIENCE – 1 credit.....C18H21

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 – 2 credits: 12thC20H17

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 – 1 credit.....C18H19

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 – 1 credit.....C18H16

Prerequisite: Agriscience * Offered on alternating years

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 – 1 credit.....

Prerequisite: Agriscience * Offered on alternating years

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.

Offered as a Dual Enrollment Credit Course through MTSU Agriculture Department.

WORK-BASED LEARNING – 2 credits: 12thC20H17

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	Heavy equipment operator
Civil engineer	Drywall installer
Contractor	Electrician
Surveyor	Plumber
Construction worker	Building inspector

RESIDENTIAL AND COMMERCIAL CONSTRUCTION PROGRAM OF STUDY

FUNDAMENTALS OF CONSTRUCTION – 1 credit.....C17H15

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.....C17H24

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 II –1 credit.....C17H25

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 – 2 credits: 12thC20H17

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

Student Organization – Technology Student Association (TSA)

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 – 1 credit.....C11H01

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.....C11H02

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 – 1 credit.....C11H03

Prerequisite: A/V Production II

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 – 2 credits: 12thC20H17

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:
.....C12H26**

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 – 1 credit.....C12H16

Offered in alternating years.

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 – 1 credit.....

Offered in alternating years.

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 – 2 credits.....C12H35

(Students in Entrepreneurship should have a minimum of 2 courses in their Program of Study. Students must be pre-approved through Ms. Primm.) 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**

FUNDAMENTALS OF TEACHING – 1 credit.....C25H05

Fundamentals of Teaching is a foundational course in the Education and Training career cluster for students interested in learning more about becoming a school counselor, teacher, librarian, or speech-language pathologist. Upon completion of this course, proficient students will gain knowledge in the history of education in the United States, careers in education, and the influence of human development on learning. Artifacts will be created for inclusion in a portfolio, which will continue throughout the full sequence of courses.

TEACHING AS A PROFESSION I – 1 credit.....C25H04

Prerequisite: Fundamentals of Teaching

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– 1 credit.....C25H02, C25H01

Prerequisite: Teaching as a Profession II

Students must meet the APSU Dual Enrollment admissions criteria of 3.0 HS GPA or 21 ACT Composite.

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.

WORK-BASED LEARNING – 2 credits: 12thC20H17

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

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Student Organization—Health Occupation Students of America - HOSA
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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
Dentist
EMT(Paramedic)
Pharmacist
Health Educator

Ultrasound Technician
Medical records Administrator
Nursing Assistant
First-Responder
Radiology Technician

**EMERGENCY SERVICES
PROGRAM OF STUDIES**

HEALTH SCIENCE EDUCATION – 1 credit.....C14H14

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 – 1 credit.....C14H09

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 – 1 credit.....C14H13

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 – 2 credits: 12thC20H17

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.

THERAPEUTIC SERVICES PROGRAM OF STUDY

HEALTH SCIENCE EDUCATION – 1 credit.....C14H14

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 – 1 credit.....C14H09

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 – 1 creditC19H16

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 emphasis 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.

MEDICAL THERAPEUTICS – 1 credit.....C14H15

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 – 2 credits: 12thC14H11

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 FOUNDATIONSC10H11

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 SYSTEMSC10H10

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.

NETWORKINGC10H13

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)

WORK-BASED LEARNING – 2 credits: 12thC20H17

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.

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 – 1 credit.....C15H10

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 – 1 credit.....C15H11
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 - 1 credit.....C15H12

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 – 2 credits: 12thC20H17

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 – 1 credit; 11th, 12thC15H00-F1A, C25H00-F1B

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 – 1 credit; 11th, 12th ...C15H00-F2A, C25H00-F2B

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 – 2 credits: 12thC20H17

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 – 1 credit.....C14H13

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

Heating, Ventilation, Air Conditioning/Refrigeration / Estimated length: 20 months: 3 credits; 11th, 12thC17H03

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 350+ hours / year.

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

