2019-2020
Needville High School
Course Selection/Planning Guide

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Graduation Requirements- Class of 2020, 2021, 2022 & 2023

(Foundation High School Program with Endorsements requirement for students entering high school in 2014/2015 and after)

All students graduating from Needville High School on the Foundation High School Program with Endorsements must complete 26 units of credit. House Bill 5 sets the end-of-course assessment instruments for secondary-level courses in Algebra I, Biology, English I, English II, and United States History for high school graduation. The purpose of the end-of-course (EOC) assessments is to measure students' academic performance in core high school courses and to become part of the graduation requirements beginning with the freshman class of 2011-2012. The State of Texas offers two (2) programs that students must choose from (Foundation High School Program and Foundation High School Program with Endorsements) when entering as a freshman at Needville High School in order to complete graduation requirements for Texas public schools. The appropriate State of Texas Seal designating which plan was completed will be attached to the student's transcript. High school courses taken in junior high will allow students to earn credit toward the 26 credits required for the Foundations High School Program with endorsements, but junior high grades are not included in student's grade point average (G.P.A.). Credit by exam, distance learning, or correspondence courses can meet credit requirements, but will not be factored into the students G.P.A (Texas Virtual School courses are factored in G.P.A.).

In order to participate in graduation exercises, all 26 credits, as listed below, must be completed with official grades turned in to the registrar's/counselor's office by the time of the graduation ceremony and documentation of satisfactory performance on all necessary STAAR/EOC exams as designated by Texas Education Agency.

Discipline	Credits	Foundation Plan with Endorsements *
English	4	English I English II English III English IV
Mathematics	4	Algebra I Geometry 3rd Year Mathematics Course** 4th Year Mathematics Course**
Science	4	IPC/Biology Biology or Chemistry 3rd Year Science Course ** 4th Year Science Course**
Social Studies	3	World Geography World History US History US Government/Economics
Language Other Than English (LOTE)	2	Spanish I, Spanish II, ASL I, ASL II
Fine Arts	1	Art, Theatre, Band, Choir, Floral Design, Dance, Music Appreciation
Physical Education (or equivalent)	1	Students may substitute the fall semester of marching band, Cheerleading, Athletics, Dance
Health (Needville ISD Requirement)	1/2	Health
Speech (Needville ISD Requirement)	1/2	Professional Communications or Speech Dual Credit
Technology (Needville ISD Requirement)	1	BIM I, DIM, Computer Programming, PIT, Web Tech, A/V 1, Yearbook (Journalism)
Elective Courses	5	Must be state approved courses and at least two (2) credits in an endorsement specific area
Total Credits	26	

*A student may graduate under the Foundation High School Program (22 credits) without earning an Endorsement with proper documentation and parent signature after the sophomore year. ** Refer to the list of eligible courses in the Course Offerings within each subject area.

Endorsements	**A student may earn an endorsement by successfully completing** **curriculum requirements for the endorsement** **a total of four credits in mathematics** **a total of four credits in science** **two additional elective credits**
STEM	A coherent sequence or series of courses selected from one of the following: CTE courses with a final course from the STEM career cluster Computer science Mathematics Science A combination of no more than two of the categories listed above
Business and Industry	A coherent sequence or series of courses selected from one of the following: CTE courses with a final course from the Agriculture, Food, & Natural Resources; Architecture & Construction; Arts, Audio/Video, Technology & Communications; Business Management & Administration; Finance; Hospitality & Tourism; Information Technology; Manufacturing, Marketing; Transportation, or Distribution & Logistics CTE career cluster The following English electives: public speaking, debate, advanced broadcast journalism including newspaper and yearbook Technology applications A combination of credits from the categories listed above
Public Services	A coherent sequence or series of courses selected from one of the following: CTE courses with a final course from the Education & Training; Government & Public Administration; Health Science, Human Services; or Law, Public Safety, Corrections, and Security career cluster JROTC
Arts and Humanities	A coherent sequence or series of courses selected from one of the following: Social studies The same language in Languages Other Than English Two levels in each of two language in Languages Other Than English American Sign Language (ASL) Courses from one or two categories (art, dance, music, and theater) in fine arts English electives that are not part of Business and Industry
Multidisciplinary Studies	A coherent sequence or series of courses selected from one of the following: Four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence Four credits in each of the four foundation subject areas to include English IV and chemistry and/or physics Four credits in AP, IB, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts
	Total Credits w/endorsement - 26
Distinguished Level of Achievement	A total of four credits in math, including credit in Algebra II A total of four credits in science Completion of curriculum requirements for at least one endorsement
Performance Acknowledgments	For outstanding performance in a dual credit course in bilingualism and biliteracy on an AP test or IB exam on the PSAT, the ACT-Plan, the SAT, or the ACT For earning a nationally or internationally recognized business or industry certification or license

Dual Credit Courses

Needville High School offers the dual credit courses in conjunction with Wharton Junior College and Texas State Technical College (TSTC). It is specifically designed for junior and senior secondary education students who qualify to earn high school and college credit simultaneously while still in high school. Program eligibility is based on the student meeting the exceptional admission standards. Refer to the chart below to assist in determining exceptional admission. Placement scores that are required by every student in order to be placed in college-level courses are:

Assessment Scores for Dual Credit				
Assessment	**Composite Score***	**Math** (MATH 1314)	**Reading**	**Writing**
TSI		350	351	340 and 4 on Essay OR 5+ on Essay
ACT	23	19 (Math)	19 (English)	19 (English)
SAT		530 (Math)	480 (Evidence-Based Reading & Writing)	
Other Dual Credit Eligibility Options				
****EOC (11th grade Dual Credit only)**		Level II: 4000 (Algebra 1)	Level II: 4000 (English II)	Level II: 4000 (English II)

*The Texas Success Initiative (TSI) requires that students meet the composite score requirement in addition to the specific subject score.
**EOC scores may not be received in time for the Dual Credit registration deadline.

High School
Course Descriptions

***All prerequisites specified for a course are to be met prior to registering for the course unless waived by the principal.**

***All students who register for a yearlong course are required to stay in that course for the duration of the year. A student will not be dropped from a class because of low grades.**

ENGLISH LANGUAGE ARTS

English I
Credit – 1
Grade – 9
Prerequisite – None

Upon completion of this required course, students should be able to identify and utilize the proper grammatical mechanics applicable to written communication. Practical knowledge and application of these skills will be demonstrated through paragraph writing and theme writing. Students would also be able to effectively read, understand, and appreciate poems, myths, short stories, and novels demonstrating an analytical as well as a critical awareness of plot, setting, characterization, and theme.

English I Pre AP
Credit – 1
Grade – 9
Prerequisite – Students must have made an A in 8th grade Regular Language Arts, have teacher recommendation, and met summer requirements.

Core curriculum is modified by including extended thinking skills, problem solving, advanced levels of writing, and cultural study through primary and secondary research, literary study, analysis and discussion. Major units of differentiation include: research, college exam preparation, and works of literature, which reflect cultural and historical study. Project assignments reflect higher level thinking skills and creativity. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

English II
Credit - 1
Grade – 10
Prerequisite – English I

Upon completion of this required course, students achieve mastery in the fundamentals of grammar and increase vocabulary and spelling skills. In addition, students will learn to write paragraphs developed by various methods. Students' progress to more complex compositions, culminating in a mini-research paper. Students will continue building on the previous year's work in literature by becoming more expert in critically viewing plays, novels, short stories, poems, and nonfictional material.

English II Pre AP
Credit – 1
Grade – 10
Prerequisite – Students must have made an A in English I or B in English I Pre AP, have teacher recommendation, and met summer requirements.

English II Pre AP is designed to meet the needs of the highly motivated and/or more capable student. Core curriculum is modified by studying additional literary selections such as Lord of the Flies and The Taming of the Shrew, or other works of this quality. Enrichment activities such as oral presentations, research, and vocabulary development support and enhance literary selections. Additionally, the student is challenged to perform at the higher taxonomical levels: analysis, synthesis, and evaluation. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

English III
Credit – 1
Grade – 11
Prerequisite – English II

This required course is intended to provide grammar review, composition writing, research paper writing, and a survey of American Literature from 1620 to present. Survival skills for the world of work will be emphasized at the basic level.

English III AP
Credit – 1
Grade – 11
Prerequisite – Students must have made an A in English II or B in English II Pre AP, have teacher recommendation, and met summer requirements.

English III AP is designed to meet the needs of the highly motivated and/or more capable student. In addition to containing the development of language arts skills, this course includes a survey of American Literature. Additionally, the student is challenged to perform at the higher taxonomical levels: analysis, synthesis, and evaluation. Emphasis is placed upon refinement of composition, including research and vocabulary development. The individual's creativity is encouraged through original and library research, problem solving, and other enrichment activities. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion. Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

English IV
Credit – 1
Grade – 12
Prerequisite – English III

This required course offers a brief, intensive review of grammar, stressing correct usage and diction. Students will write themes on both literary and nonliterary topics plus a fully documented research paper. The literature presented to the students will be a survey of English literature from the Anglo-Saxon to the Modern Age.

English IV AP
Credit – 1
Grade – 12
Prerequisite – Students must have made an A in English III or B in English III AP, have teacher recommendation, and met summer requirements.

The emphasis in the 1st semester of English IV AP – Composition is on sophisticated critical writing. Resource materials provide a background for close reading or literary works. Individual study involves extensive research papers being one of the major activities of the course. Qualitative revision refines expression through sensitivity of nuances in the use of language and fluency in the conventions of grammar usage. This course is recommended for students planning to take the advanced placement test in English for college credit. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion. Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

English IV Dual Credit
Credit – 1
Grade – 12
Prerequisite – English III, Admission to Wharton County Junior College

This course will study English to improve students' abilities to think objectively and to communicate effectively. Stress on clarity and effectiveness in the sentence, paragraph, and whole composition. The composition is chiefly expository, and assigned material is designed to increase students' ability to read objectively, to develop skills in critical analysis, and to improve their style. Students must meet the deadlines for enrollment with Wharton County Junior College. Students must also meet the attendance requirements of Needville ISD and the WCJC Instructor. **Any student with a failing 1st semester average in a Dual Credit class will be placed in a regular level class for the 2nd semester.**

Journalism I
Credit – 1
Grade – 9-12
Prerequisite – C average in previous English class

Journalism I focuses on the fundamentals of journalism, including various modes of writing (news, features, etc.), photo composition, and essential computer skills. Students will learn and practice both newspaper and yearbook production skills.

Journalism II, III, IV (Newspaper) (Advanced)
Credit – 1
Grade – 10-12
Prerequisite – C average in previous English class and teacher recommendation

Members of the Blue Jay Chatter staff fill a page in a local publication almost every week of the school year. The staff's job is to inform parents, members of the community, and students about the activities at Needville High School. The articles on the school page include information about class projects, athletic events, clubs' news and activities, outstanding students, and special events that may occur during the school year.

Journalism II, III, IV (Yearbook) (Advanced)
Credit – 1
Grade – 10-12
Prerequisite – B average in previous English class and teacher recommendation

Students create a written and pictorial review of the school year. Each individual is responsible for the copy and picture layout of the pages, taking of photographs, and creative ideas for the overall book.

FOREIGN LANGUAGE

Spanish 1
Credit – 1
Grade - 9-11
Prerequisite - None

Spanish 1 students acquire about 3,500-4,000 new words. They learn the building blocks of the Spanish language. The basic Spanish verb families are learned. Simple dialogs and dictations are to be presented. Geography of the Spanish-speaking countries is learned along with their cultural traditions and holiday celebrations.

Spanish 1-Native Speakers
Credit - 2
Grade - 9-11
Prerequisite - Pretest by teacher for placement-must be fluent speakers

In this class, the students polish their language skills through literature and other media. Grammar is also learned. At the end of the course if the student has been successful, a test is administered to determine if the student can be awarded credit for two years of Spanish. They must score a 90% or above to receive credit for the two years.

Spanish 1 Pre AP
Credit - 1
Grade - 9-11
Prerequisite - None, The rigor of this class will be considerably greater than that of the regular Spanish I class. A summer assignment will be required for this class

The goal of this course is to help students communicate more effectively with other Spanish speakers through written and oral expression. The study of a second language will help them become a more active participant in the global community. The course integrates language with history, culture, daily life and community. Through the study of history and culture, emphasis is placed on interconnectedness, global awareness and the broad movements and patterns of the history of Spanish speakers. Vocabulary and grammatical structures will be taught in context. The course is designed to stimulate interest in and foster respect for other peoples and cultures. Students will be taught in an environment that fosters risk-taking and reflective thinking. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Spanish 2
Credit – 1
Grade - 10-12
Prerequisite - Spanish 1

In this class, the students continue to add to the Spanish 1 curriculum. The different tenses of the Spanish language are studied along with more complex vocabulary, dialogs, dictations, and translations. Cultural elements such as indigenous people, Hispanic women, and traditions of the Spanish-speaking world are emphasized.

Spanish 2 Pre-AP
Credit - 1
Grade - 10-12
Prerequisite - Spanish 1

The rigor of this class will be considerably greater than that of the regular Spanish II class. In this class, the students will continue to add to their knowledge of the Spanish language, nations, culture, history, customs and daily life by student participation in their own dialog writing, oral projects, group presentations, group activities and studies of the language. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Spanish 3 (Advanced)
Credit - 1
Grade - 11-12
Prerequisite- Grade of 80 or higher in Spanish 2 or Spanish 1 Native Speakers

Spanish 3 students will be expected to be able to read material in Spanish about a variety of topics. Culture, history, geography, and literature are stressed. More complex grammar patterns are learned. Students will be able to listen, speak, read, and write Spanish on an Intermediate level.

American Sign Language 1
Credit - 1
Grade - 9-12
Prerequisite- None

Students in ASL 1 will gain an awareness of cultural behaviors of the deaf signing community as well as learn a brief history of ASL. This course emphasizes interpersonal communication to achieve communicative competence. Students will develop finger spelling skills as well as expressive and receptive sign skills, acquire an extensive vocabulary, understand basic ASL syntax, understand basic principles of ASL grammatical rules, copy ASL non-manuals, use some ASL classifiers, increase awareness of cultural behaviors of the Deaf signing community, and participate in group discussions and role play practices.

MATHEMATICS

Algebra I
Credit – 1
Grade – 9
Prerequisite – None

Algebra I is the foundation of all mathematics courses. Students will analyze data as it relates to the real world. Concepts and skills involve operations of real numbers, linear functions, linear inequalities, quadratic functions, factoring polynomials, exponential functions, variation and systems of linear equations and inequalities.

Algebra I Pre AP
Credit – 1
Grade – 9
Prerequisite – Students must have made an A in 8th Grade mathematics, teacher recommendation, and met summer requirements.

Algebra I is the foundation of all mathematics courses. Students will analyze data as it relates to the real world. Concepts and skills involve operations of real numbers, linear functions, linear inequalities, quadratic functions, factoring polynomials, exponential functions, variation and systems of linear equations and inequalities. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Geometry
Credit – 1
Grade – 9-10
Prerequisite – Algebra I

After a lengthy introduction to points, lines, and planes through definitions, the course will include topics such as formal proofs, parallel lines, congruent triangles, polygon, and quadrilaterals. This course will continue the concept of formal proof and will also include similar triangles, circles, area, inequalities, locus, and space geometry.

Geometry Pre AP
Credit – 1
Grade – 9-10
Prerequisite – Students must have made an A in 9th Grade Algebra I or a B in 8th Grade Algebra I, teacher recommendation, and met summer requirements.

Geometry Pre AP is an introduction to plane, solid, and coordinate geometry as a deductive science. This course is designed to accelerate and provide greater depth to the students' understanding of triangle relationships, polygonal relationships, and measurement transformations. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Math Models with Applications
Credit – 1
Grade –11
Prerequisite – Algebra I and Geometry, This class may not be taken after Algebra II, minimum graduation plan only

In this course, students use algebraic, graphical, and geometric reasoning to recognize patterns and structure, to model information, and to solve problems from various disciplines. Students use mathematical methods to model and solve real-life applied problems involving money, data, chance, patterns, music, design, and science. Students use mathematical models from algebra, geometry, probability, and statistics and connections among these to solve problems from a wide variety of advanced applications in both mathematical and nonmathematical situations. Students use a variety of representations, tools, and technology to link modeling techniques and purely mathematical concepts and to solve applied problems.

Algebra II
Credit – 1
Grade – 10-12
Prerequisite –Algebra I and Geometry, may be concurrently enrolled in Geometry, teacher recommendation

This course contains a review of many of the topics included in Algebra I. Topics such as operations on real numbers, properties of addition and multiplication, equality, and order are covered in greater detail. Other topics include linear equations and inequalities in or two variables operations on polynomials, rational expressions, radical and complex numbers. Methods of solving systems of equations and inequalities are also studied. A review of relations and functions leads into the study of quadratic functions. Various topics such as logarithms, matrices, and determinants conclude the course.

Algebra II Pre AP
Credit - 1
Grade – 10-12
Prerequisite – Students must have made an A in Geometry or a B in Geometry Pre AP, teacher recommendation, and met summer requirements.

This course is designed to accelerate, provide greater depth, and expand the basic objectives of the real number field. Rational, irrational, and complex number sets; matrices and polynomial functions. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Statistics and Business Decision Making
Credit – 1
Grade – 11-12
Prerequisite – Algebra II

Statistics and Business Decision Making is an introduction to statistics and the application of statistics to business decision making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid.

Pre-Calculus (Advanced)
Credit – 1
Grade – 11-12
Prerequisites - Algebra I, Geometry, Algebra II

This course is a one-year college preparatory course that prepares the student for AP Calculus at the high school level or college calculus upon graduation from high school. It includes the in-depth study of polynomial, exponential, logarithmic, and circular trigonometric functions; vectors; and parametric equations. The use of computer/calculator graphics technology enables the student to investigate the limit concept and characteristics of graphs of the functions studied.

Pre-Calculus Pre AP
Credit – 1
Grade – 11-12
Prerequisite - Students must have made an A in Algebra II or a B in Algebra II Pre AP, teacher recommendation, and met summer requirements.

This course is an enhanced one-year college preparatory course that prepares the student for AP Calculus at the high school level, or college calculus upon graduation from high school. It includes the in-depth study of polynomial, exponential, logarithmic, and circular trigonometric functions including their graphs; vectors; parametric equations; polar and complex numbers; conics; linear regression; and sequences and series. The use of computer/calculator graphics technology enables the student to investigate the limit concept and characteristics of graphs of the functions studied.
Students will also cover and/or review mathematical concepts necessary for success on the ACT or SAT test. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Calculus AP
Credit – 1
Grade – 12
Prerequisite – Students must have made an A in Pre Cal or a B in Pre Cal Pre AP, teacher recommendation, and complete summer assignment.

This course is designed to prepare students to take the Advanced Placement Calculus test. Topics include derivatives, integration, and application- level problem solving requiring the use of trigonometry, algebra, elementary analysis concepts, derivatives, and definite integrals. More advanced calculus concepts are developed throughout the course, culminating with an introduction to differential equations. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion. Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Statistics (MATH 1342) Dual Credit
Credit – ½
Grade – 11-12
Prerequisite –Algebra II, Admission to Wharton County Junior College

Collections, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. **Any student with a failing 1st semester average in a Dual Credit class will be placed in a regular level class for the 2nd semester.**

College Algebra (MATH 1314) Dual Credit
Credit – ½
Grade – 11-12
Prerequisite – Algebra II, Admission to Wharton County Junior College

Includes systems of linear equations; selected topics on determinants and matrices; quadratic equations; systems involving quadratics, ratio and proportion, variation, exponents and radicals; inequalities; progressions; permutations and combinations; the binomial theorem; and selected topics in theory of equations and partial fractions. **Any student with a failing 1st semester average in a Dual Credit class will be placed in a regular level class for the 2nd semester.**

Business Math (MATH 1324) Dual Credit
Credit – ½
Grade – 11-12
Prerequisite – Algebra II, Admission to Wharton County Junior College

The application of common algebraic functions including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities, systems of linear equations; matrices; linear programming; and probability, including expected value. **Any student with a failing 1st semester average in a Dual Credit class will be placed in a regular level class for the 2nd semester.**

Business Calculus (MATH 1325) Dual Credit
Credit – ½
Grade – 11-12
Prerequisite – MATH 1314 OR MATH 1324, Admission to Wharton County Junior College

This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. **Any student with a failing 1st semester average in a Dual Credit class will be placed in a regular level class for the 2nd semester.**

SCIENCE

Integrated Physics and Chemistry
Credit - 1
Grades - 9-10
Prerequisite - None

This course integrates the disciplines of physics and chemistry in topics such as the following: motion, waves, energy, transformations, properties of matter, changes in matter, and solution chemistry. Student investigations will focus on accurate observations, data collection, data analysis, and the safe manipulation of laboratory apparatus and materials in the laboratory.

Biology
Credit – 1
Grade – 9-10
Prerequisite - None

Biology is the study of all living things. Therefore, understanding life and life processes depends upon mastering the unifying principles and concepts applicable to life at all levels. Investigations into the methods of science will be made. Important topics are treated historically and logically. Experiments and lab investigations will be conducted.

Biology Pre-AP
Credit - 1
Grade – 9-10
Prerequisites – Students must have made an A in 8th grade Science, Algebra I, teacher recommendation, and met summer work requirements.

Biology Pre AP is an intensive laboratory course that offers the student the opportunity to study fundamental biological and biochemical principles and relate them to advanced biological concepts. Higher order thinking skills, laboratory investigations, and independent projects are emphasized. The ability to understand basic chemical processes is necessary. Course emphasis will be on the study of life functions that are common to all organisms and an awareness of, and an appreciation for, the fact that all organisms with their specific adaptations carry out the same life functions. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Chemistry
Credit – 1
Grade – 10-12
Prerequisite – Biology and Algebra I

This course addresses the fundamental concepts of chemistry including the chemical nature of solids, liquids, gases, atoms, elements, mixtures, compounds, solutions, acids, and bases. Students are introduced to properties and structure of matter, a brief history of chemistry, atomic theories, the development and use of the periodic table, and chemical bonding. Students learn to write and balance chemical equations, determine molar relationships, and use stoichiometry in calculations. The course provides opportunities to correlate hypotheses with observations of chemical phenomena through laboratory experiences.

Chemistry Pre AP
Credit – 1
Grade – 10-12
Prerequisite – Students must have made an A in Biology or a B in Biology Pre AP, have teacher recommendation, and met summer requirements. Biology Pre AP is recommended.

This course addresses the fundamental concepts of chemistry including the chemical nature of solids, liquids, gases, atoms, elements, mixtures, compounds, solutions, acids, and bases. The course includes a brief history of chemistry, and a comprehensive study of atomic theories, the periodic table and trends, chemical nomenclature, formulas, chemical reactions and equations, stoichiometry, molar relationships, atomic structure, chemical bonding, kinetic molecular theory, and acid/base reactions. The course provides opportunities to correlate hypotheses with observations of chemical phenomena through laboratory experiences. **Any student with a failing 1st semester average in this class will be placed in a regular level class for the 2nd semester.**

Principles of Technology
(Physics credit, student cannot earn credit for both Physics and Principles of Technology)
Credit – 1
Grade – 11-12
Prerequisite - Biology and Algebra I

This course is an extensive hands-on course designed to provide a study in force, work, rate, resistance, energy, power and force transformers as applied to mechanical, fluid, thermal, and electrical energy that comprise simple technological devices and equipment. The course can be taken for physics graduation credit, is a Career and Technical Education funded course, and requires 40% of laboratory and fieldwork requirements.

Physics
Credit – 1
Grade – 11-12
Prerequisite - Algebra II or concurrently enrolled, and Chemistry

This course involves the study of the relationship between matter and energy. Basically, the course includes the study of mechanics, heat, light, sound, magnetic, electric, and nuclear energy. Emphasis is based on proving basic principles through experimentation and application of such principles through problem solving.

Anatomy and Physiology (Advanced)
Credit - 1
Grade – 11-12
Prerequisite – Biology and Chemistry

In Anatomy and Physiology, students conduct field and laboratory investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study the following topics: the energy needs of the human body and the processes through which these needs are fulfilled, the responses of the human body to internal and external forces, the body processes that maintain homeostasis, the electrical conduction processes and interactions, the body's transport systems, environmental factors that affect the human body, comparisons between anatomical structures to physiological functions, the process of reproduction, growth, and development.

Biology AP
Credit – 1
Grade – 11-12
Prerequisite – Biology and Chemistry (Completion of Biology Pre AP and Chemistry Pre AP is recommended), students must have made an A in Biology or a B in Biology Pre AP, teacher recommendation, and met summer requirements.

Biology AP is designed to be the equivalent of a college introductory biology course. The range and depth of topics covered, the kind of laboratory work done by students, and the time and effort required of students differs significantly from the high school biology course. This course aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal with the rapidly changing science of biology. Students will be expected to accomplish these goals through many hands-on laboratory assignments and analysis of results. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion.**

Chemistry AP
Credit – 1
Grade – 11-12
Prerequisite – Biology and Chemistry (Chemistry Pre AP is recommended), an A in Chemistry or a B in Chemistry Pre AP, Algebra II or concurrently enrolled, teacher recommendation, and met summer requirements.

Chemistry AP is designed to be the equivalent of a college introductory chemistry course. The course includes a brief review of the fundamentals of chemistry, then focuses on the following area of chemistry: solution stoichiometry, predicting reactions, oxidation-reduction reactions, atomic bonding, kinetics, thermodynamics, equilibrium, acids, bases, electrochemistry, nuclear chemistry, and organic chemistry. The course provides opportunities to correlate hypotheses with observations of chemical phenomena through laboratory experiences and reporting. Critical thinking and problem solving skills are emphasized. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion.**

Physics 1 AP
Credit – 1
Grade – 11-12
Prerequisite – Algebra II, Biology, and Chemistry
Teacher recommendation and Met summer requirements.

This AP course will require students to dedicate themselves to study required by rigorous college-level standards. Students taking this course will be prepared and are expected to take the AP test upon completion. Topics covered include Kinematics; Newton's Laws of Motion; Work, Energy and Power; Systems of Particles and Linear Momentum; Circular Motion and Rotation; and Oscillations and Gravitation. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion. Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

Forensic Science
Credit – 1
Grade – 11/12
Prerequisite – Biology and Chemistry

Forensic Science is a course that uses a structured and scientific approach to the investigation of crimes of assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of criminal behavior. Students will learn terminology and investigative procedures related to crime scene, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, ballistics, and blood spatter analysis. Students will learn the history, legal aspects, and career options for forensic science.

Advanced Animal Science
Credit – 1
Grade –11-12
Prerequisite – Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra l and Geometry; and Small Animal Management, Equine Science, or Livestock Production.

To be prepared for careers in the field of animal science, students need to attain academic skills and knowledge, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry standards. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. This course examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences.

Environmental Systems
Credit – 1
Grade –11-12
Prerequisite – Biology & Chemistry

Environmental Science is a course that introduces students to a wide range of topics about our environment. The course covers Earth's processes, ecology, human populations and their impact on the environment, natural resources, renewable and non-renewable energy, and policies that govern our environment and its use. The scientific method will be applied to various labs throughout the course. The course will also explore careers in the environmental field. At the end of the course, students should have a better understanding of our environment.

Engineering Science (Advanced)
Credit – 1
Grade – 11-12
Prerequisite – Algebra I, Biology, Chemistry, and Integrated Physics and Chemistry (IPC) or Physics

Engineering Science is an engineering course designed to expose students to some of the major concepts and technologies that they will encounter in a postsecondary program of study in any engineering domain. Students will have an opportunity to investigate engineering and high-tech careers. In Engineering Science, students will employ science, technology, engineering, and mathematical concepts in the solution of real-world challenge situations. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.

Environmental Science AP
Credit – 1
Grade – 11-12
Prerequisite – Biology and Chemistry (Completion of Chemistry Pre AP is recommended); Students must have made an A in Chemistry or a B in Chemistry Pre AP; Teacher recommendation and met summer requirements.

The AP Environmental Science course is the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion.**

Physics C AP
Credit – 1
Grade – 12
Prerequisites - Physics or Physics 1 AP; Calculus or concurrently enrolled; Teacher recommendation and met summer requirements

AP Physics C: Mechanics is equivalent to a one-semester, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus is used throughout the course**. Students taking this course are highly encouraged to take the Advanced Placement Test upon completion.**

Scientific Research and Design (Advanced)
Credit – 1
Grade – 11/12
Prerequisites - Biology, chemistry, and physics (concurrent or completed); must complete summer work requirements

This course is for the student who wants to explore scientific research and problem solving. This course is project based. The student will propose a research topic and upon approval research said topic and develop a plan of investigation. The student will maintain accurate data records and at the conclusion present the findings to a panel of scientific professionals.

SOCIAL STUDIES

World Geography
Credit – 1
Grade – 9
Prerequisite – None

In this course, students will gain a broad knowledge of the world around them by analyzing the relationship between people, places, and environments. Students will use problem solving and decision making skills to ask and answer geographical questions. This course centers around the physical processes that shape patterns in the physical environment, the concept of regions, the characteristics of major landforms, climates, and ecosystems and their interrelationships, the historical, political, economic and social processes that shape cultural patterns of settlement throughout different regions of the world.

World Geography Pre AP
Credit – 1
Grade – 9
Prerequisite – Students must have an A in 8th Grade Social Studies, teacher recommendation, and met summer requirements.

This course provides students the opportunity to study the interaction of people and their physical environments in the major areas of the world. Content introduces the student to the world of geographers, their unique vocabulary, tools, the physical setting of the earth, locate and study different landforms and regions of the world, learn how people and geography impact each other, and are introduced to urban analysis. Content offers students the opportunity to put into practice the geographical concepts and skills they have accumulated throughout the social studies program beginning in the elementary grades and in the Texas and United States history courses. Pre AP courses prepare students who intend to continue their studies in AP. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

World History
Credit – 1
Grade – 10
Prerequisite – None

A survey of World History covers the beginnings of mankind to the present. Traditional historical points in world history are identified as students identify important events and issues in western civilization as well as in civilizations in other parts of the world. Students analyze the connections between major developments in science and technology, the growth of industrial economies, current events, and they use the process of historical inquiry to research, interpret, and analyze using multiple sources of evidence. Upon completing this course, students should be able to understand the significance of the events, achievements, contributions, and mistakes of each historical period.

World History Pre AP
Credit – 1
Grade – 10
Prerequisite – Students must have an A in World Geography or a B in World Geography Pre AP, teacher recommendation, and met summer requirements.

This course will be an accelerated class and cover World History in much more detail. A survey of World History covers the beginnings of mankind to the present. Traditional historical points in world history are identified as students identify important events and issues in western civilization as well as in civilizations in other parts of the world. Students analyze the connections between major developments in science and technology, the growth of industrial economies, current events, and they use the process of historical inquiry to research, interpret, and analyze using multiple sources of evidence. Student expectations will include group and individual research activities along with problem-solving skills. Students will begin to develop an ability to analyze historical evidence and an ability to express that understanding in writing. Pre AP courses prepare students who intend to continue their studies in AP. **Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

United States History
Credit – 1
Grade – 11
Prerequisite – World History or World Geography

The course covers the history of the United States since 1877 to the present. Special emphasis is given to historical content focusing on the political, economic, and social events and issues related to industrialization and urbanization, major wars, domestic and foreign policies, and reform movements, including civil rights. Course objectives include understanding how and why the present came to be; performing with greater wisdom the responsibilities of democratic citizenship; identify with institutions and traditions which have made our nation great; and an understanding of the role of capitalism in our society. Students use critical thinking skills and a variety of primary and secondary source material to explain and apply different methods that historians use to understand and interpret the past, including multiple points of view and historical context.

United States History AP
Credit – 1
Grade – 11
Prerequisite – Students must have made an A in World History or a B in World History Pre AP, teacher recommendation and met summer requirements.

The AP U.S. History course focuses on developing students' understanding of American history from approximately 1491 to the present. The College Board's Advanced Placement Program® (AP®) enables students to pursue college-level studies while still in high school. This course is divided into periods of time and emphasizes themes throughout American history. These themes include the American identity, economic evolution, peopling, politics and power, Environment and Geography, Ideas, Beliefs, Culture, and American foreign policy. Course objectives include developing the students' critical thinking skills which would include a knowledge of, comprehension of, analysis of, synthesis of and an evaluation of the events of American History in order to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in an essay format. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion. Any student with a failing 1st semester average in a Pre AP/AP class will be placed in a regular level class for the 2nd semester.**

United States History Dual Credit
Credit – 1
Grade – 11
Prerequisite – World History or World Geography, Admission to Wharton County Junior College

Course objectives include developing in the student critical thinking skills which would include a knowledge of, comprehension of, analysis of, synthesis of and an evaluation of the events of American History; enabling the student to identify the basic elements of the cultural heritage of the United States of America and to understand and appreciate its diversity; developing in the student an understanding of the uses of historical knowledge, to show how the past helps to explain the present and to assist the student in developing an historical perspective; and providing students with an adequate base of historical knowledge for the furtherance of their studies in other disciplines and as transfer students to other colleges. Students must meet the deadlines for enrollment with Wharton County Junior College. Students must also meet the attendance requirements of Needville ISD and the WCJC Instructor. **Any student with a failing 1st semester average in a Dual Credit class will be placed in a regular level class for the 2nd semester.**

United States Government
Credit – ½
Grade – 12
Prerequisite – U. S. History

This course is a study of the origins, development, structure, and functions of the American government at the national, state, and local levels. Topics include the constitutional framework, federalism, the functions and structure of the three branches of government, including the bureaucracy; civil rights and liberties, political participation and behavior, policy formation, and current events. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system.

United States Government AP
Credit – ½
Grade – 12
Prerequisite – Students must have made an A in US History or a B in US History AP, teacher recommendation, and met summer requirements.

AP United States Government and Politics is a one-semester, college level course offered to students who wish to be academically challenged and plan to take the AP exam in the spring. It is a survey course that provides an introduction into the operation of American national government. As such, we will examine the American system of government and its origins, political opinions, interests, and behaviors, political organizations, to include parties, interest groups and mass media, the institutions of government and their role in making and enforcing public policy, civil liberties and civil rights, primary source materials and contemporary news analyses. In exposing you to these areas, it is our goal to foster the development of the analytical perspectives for interpreting, understanding, and explaining the political processes and events in this country. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion.**

United States Government Dual Credit
Credit – ½
Grade – 12
Prerequisite – U. S. History, Admission to Wharton County Junior College

This course focuses on the origin and development of the U.S. Constitution, structure and powers of the national government, including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties, and civil rights. Students must meet the deadlines for enrollment with Wharton County Junior College. Students must also meet the attendance requirements of Needville ISD and the WCJC Instructor.

Economics (Fundamentals of Free Enterprise)
Credit – ½
Grade – 12
Prerequisite – U. S. History

This course focuses on the structure, function, principles, basic concepts, and problems of the American economy. The study of scarcity, opportunity cost, and the fundamental economic problem will form the conceptual framework for a systematic analysis of the factors of production, economic systems, supply and demand, forms of business organization, banking system, market structures, and market failure. Special emphasis will be given to the role of government in our economy. Students will learn about the use of monetary and fiscal policies to bring about economic stability, International trade and the role of the United States in the global economy, and economic problems facing our nation today. Instruction in personal financial literacy is also incorporated into the course.

Microeconomics AP
Credit – ½
Grade – 12
Prerequisite – Students must have made an A in US History or a B in US History AP, passed Algebra II, teacher recommendation, and met summer requirements

This course gives students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and the role of the government in promoting greater efficiency and equity in the economy. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion.**

Economics Dual Credit Online
Credit – ½
Grade – 12
Prerequisite – U. S. History, Admission to Wharton County Junior College

This course analyses basic economic concepts and principles dealing with the processes and factors of production, exchange, distribution, and consumption; national income accounting and employment theory; cyclical fluctuations; and money, credit, and banking. Students must meet the deadlines for enrollment with Wharton County Junior College. Students must also meet the attendance requirements of Needville ISD and the WCJC Instructor.

Sociology
Credit – ½
Grade – 11-12
Prerequisite – World Geography and/or World History

Students will have the opportunity to explore our culture, groups, and institutions. Students will analyze types of groups and interaction among groups. This course will also examine social institutions, their structure and formation. Students will develop an understanding of the role of beliefs, traditions, and folkways in a culture. Social problems, the impact of the media, propaganda, and cultural conflict will also be explored.

Psychology
Credit – ½
Grade – 11-12
Prerequisite – World Geography and/or World History

Students will examine the nature of psychology and analyze its tools and techniques. They will examine the stages of human growth and development and study the factors involved in learning and language development. They will also examine the thinking process, creativity, motivation, emotions, personality, theories, disorder therapies, and personality testing. Students will analyze the development of self-concept, study the relationships of individuals with others and groups and develop long- and short-range goals for themselves

Personal Financial Literacy
Credit – ½
Grade – 10-12
Prerequisite – None

This course is designed to teach students how to analyze decisions involving earning and spending, saving and investing, credit and borrowing, insuring and protecting, and college and postsecondary education and training.

SPEECH AND DEBATE

Professional Communication
Credit – ½
Grade – 9-12
Prerequisite – None

Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

Speech Dual Credit
Credit – ½
Grade – 9-12
Prerequisite – None

This course designed to teach students the components of the human communication process. Students are taught to communicate clearly and effectively through the medium of speech. Special emphasis is on the organization, content and delivery of extemporaneous speeches.

Debate I, II, III (Advanced)
Credit – 1
Grade – 9-12
Prerequisite – Debate instructor approval

Upon completion of this course, students are highly accomplished speakers, reasoners, researchers, and debaters. The major focus is in depth research skills and competitive debating. The class is heavily involved in U.I.L. competition, and students are required to attend several tournaments. They must be prepared to spend hours in research and organization of materials.

Independent Study in Speech (Advanced)
Credit – ½ to 1
Grade – 12
Prerequisite – 3 credits of speech/debate and instructor approval

This advanced level course allows the student to determine a special project in speech communications study that requires the use of research skills in addressing a specific problem/issue/question/topic. The student is required to establish a project proposal and then work through the proposal and present written and/or oral defensive/explanation. The policy can deal with a political, social, or literary question.

FINE ARTS

Art I
Credit – 1
Grade – 9-12
Prerequisite – None

The beginning art student explores a variety of concepts that provide a basic knowledge of art topics. The Art Elements and perspective drawing are studied during the first semester. The second semester mainly deals with the Art Principles and Art History. Introductory to basic ceramic techniques is provided on an as-time-and-materials-allow basis.

Art II
Credit – 1
Grade – 10-12
Prerequisite – Art I and Instructor Approval

The second year art student applies the knowledge and skills learned in the first year class through a comprehensive study of drawing and drawing techniques. Art elements and principles are applied to specific assignments that increase their understanding, resulting in physical and visual enhancement of their skills. Art II Students are required to complete Western themed artwork for competition in the Houston Livestock Show and Rodeo Student Art Program. Ceramics is offered to increase three-dimensional abilities.

Art III
Credit – 1
Grade – 11-12
Prerequisite – Art II and Instructor Approval

The third year art student is encouraged to apply skills and techniques from Art I and Art II courses to a wide range of self-study projects. The Art III class is self-paced and students work toward the completion of portfolio items. Art III Students are required to complete Western themed artwork for competition in the Houston Livestock Show and Rodeo Student Art Program.

Art IV (Advanced)
Credit – 1
Grade – 12
Prerequisite – Art III and Instructor Approval

The fourth year art student works on self-study projects designed to enhance specific skills. The emphasis for Art IV students is the accumulation of portfolio work, stressing quality--not quantity. Art IV Students are required to complete Western themed artwork for competition in the Houston Livestock Show and Rodeo Student Art Program.

Graphic Design I
Credit – 1
Grade – 11-12
Prerequisite – Art III and Instructor Approval

Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

Graphic Design II
Credit – 1
Grade – 12
Prerequisite – Graphic Design I, Enrollment in Art IV, and Instructor Approval

The Advanced Graphic Design student is well-versed in all aspects of the advertising and visual communications industries and continues developing skills and knowledge required to allow the further advancement in this career field. Students are expected to apply their knowledge and understanding of fundamental visual art and design elements and principles to solve problems posed by the demands of the ever-changing advertising and visual communications industries.

High School Band I, II, III, (IV Advanced)
Credit – 1 each year
Grade – 9-12
Prerequisite – Director approval and audition

High School Band is a continuation of the music education process started in the Middle School and continued through the Junior High School. The band is a competitive organization that participates in many contests and festivals. The band is also a service organization that provides music for pep rallies, football games, etc. It is a learning experience that cannot be equaled in any other course. The Needville High School Band emphasizes pride, dedication, and leadership.

Jazz Band I-IV (IV Advanced)
Credit – 1
Grade – 9-12
Prerequisite – Enrollment in Band

This secondary performance-based course provides students with a variety of jazz ensemble experiences. Music is studied and performed from an intermediate to advanced level of jazz repertoire. Jazz basics and technique are intermixed with the jazz festival and concert music. This ensemble performs at festivals and performances throughout the semester. Extracurricular commitment is required. Traditional jazz instruments are used in this course. Enrollment in Band is a prerequisite with the following exceptions: guitar, bass and piano. An audition and director approval is required for all instruments.

Choir I, II, III, (IV Advanced)
Credit – 1
Grade – 9-12
Prerequisite – Audition

This course contains rehearsal and performance of a variety of choral music and fundamentals of music theory. Students participate in several concerts each year and will participate in performances at school and at community events. You must audition and be accepted into this program. There are three levels in choir: Junior Varsity Mixed Choir, Varsity Mixed Choir, and Varsity Treble Choir.

Music Appreciation
Credit – 1
Grade - 10 - 12
Prerequisite - None

This course is for students who have an appreciation for music but do not wat to participate in a performance-based course. Students will be introduced to the history, theory, and various genres of music, and social movements.

Theatre Arts
Credit – 1
Grade – 9-12
Prerequisite – None

This course offers an introduction to both acting and to the technical aspects of theatre arts. Topics include a survey of the historical evaluation of the theatre, beginning voice and diction, movement techniques, acting techniques, mime, improvisation, application of stage makeup, use of properties and costuming, and backstage work including lighting and set construction. This course fulfills the Fine Art credit for the Recommended and Distinguished Graduation Plans.

Theatre Production I, II, III, (IV Advanced)
Credit – 1
Grade – 9-12
Prerequisite – None

This course provides all the required elements of Theatre Arts I **with required participation in theatre production**. This course requires many hours of after school work. This course fulfills the Fine Art credit for the Recommended and Distinguished Graduation Plans.

Technical Theatre I
Credit – 1
Grade – 10-12
Prerequisite – Theater Arts or Theater Production I

Through a variety of experiences with diverse forms of storytelling and production, Technical Theatre I will afford students the opportunity to develop and exercise creativity, intellectual curiosity, critical thinking, problem solving, and collaborative skills. Participation and evaluation in a variety of theatrical experiences will afford students opportunities to develop an understanding of self and their role in the world

Technical Theatre II
Credit – 1
Grade – 11-12
Prerequisite – Technical Theatre I

Technical theatre II is an extension of Technical Theatre Level I. Students will cover the following areas but more extensively than the previous year. Those students continuing on to Technical Theatre III and IV will build upon their knowledge each year with major projects related to the following items: lighting and sound, stagecraft, costume construction, makeup for the theatre, design for the theatre, and theatre management.

Dance I, II, II, (IV Advanced)
Credit – 1
Grade – 9-12
Prerequisite – Membership in Needville High School Sapphires

Dance provides students with an exploration of the basic fundamentals of movement. Dance elements to be emphasized include ballet, folk/ethnic, jazz, tap, improve, modern and choreography. Students will develop kinesthetic awareness and an appreciation for the development of dance through the study of dance history.

HEALTH/PHYSICAL EDUCATION

Health
Credit – ½
Grade – 9-12
Prerequisite – None

Principles of Health is a course designed to acquaint students with such subjects as (1) diseases – prevention, cure, and causes; (2) social health – emotional, mental, dating, and marriage; (3) nutrition and its value; (4) drugs, including a section on alcohol and cigarettes. This course also discusses the job opportunities and career developments in several areas of health education

Physical Education
Credit – ½
Grade – 9-12
Prerequisite – None

I. Foundation of Personal Fitness ½ credit

Students enrolled in Foundations of Personal Fitness experience a new approach in physical education and the concept of personal fitness. The basic purpose of this course is to motivate students to strive for lifetime personal fitness with an emphasis on the health-related components of physical fitness. The knowledge and skills taught in this course include teaching students about the process of becoming fit as well as achieving some degree of fitness within the class. The concept of wellness, or striving to reach optimal levels of health, is the corner stone of this course and is exemplified by one of the course objectives-students designing their own personal fitness program.

II. Aerobic Activities ½ credit

Students in aerobic activities are exposed to a variety of activities that promote health-related fitness. A major expectation of this course is for the student to design a personal fitness program that uses aerobic activities as a foundation.

III. Weight Training/Conditioning **½ credit**

Students in this class would perform exercises that train the major muscle groups to the point of volitional fatigue at least twice a week for each major muscle group through a full range of motion. The training will adhere to specific exercise techniques.

IV. Adventure/Outdoor Education **½ credit**

Students enrolled in adventure outdoor education are expected to develop competency in outdoor education activities that provide opportunities for enjoyment and challenge. Emphasis is placed upon student selection of activities that also promote a respect for the environment and that can be enjoyed for a lifetime.

V. Individual Sports **½ credit**

Students in Individual Sports are expected to participate in a wide range of individual sports that can be pursued for a lifetime. The continued development of health-related fitness and the selection of individual sport activities that are enjoyable is a major objective of this course.

VI. Team Sports **½ credit**

Students enrolled in Team Sports are expected to develop health-related fitness and an appreciation for team work and fair play. Like the other high school physical education courses, Team Sports is less concerned with the acquisition of physical fitness during the course than reinforcing the concept of incorporating physical activity into a lifestyle beyond high school.

Athletics
Credit – ½-1
Grade – 9-12
Prerequisite – Coaches' approval

The Needville Athletic Program is designed to build character in each student-athlete through a strong work ethic, perseverance, and a commitment to excellence in the arena and the classroom. Each student-athlete will be challenged physically and mentally in a variety of sports including the following:

Girls: Volleyball, Basketball, Cross Country, Softball, Track & Field, Tennis, Golf, and Powerlifting

Boys: Football, Basketball, Cross Country, Baseball, Track & Field, Tennis, Golf, and Powerlifting

Cheerleading
Credit – 1 (may only receive one credit for Cheerleading throughout one's high school career; any additional credits earned through Cheerleading are received as local credit)
Grade – 9-12
Prerequisite – Membership in Needville High School Cheerleading Squad

This course is designed for the cheerleading squad to practice tumbling, yells, and stunts as a group. **This class does not count as athletics.**

Dance I, II, II, (IV Advanced)
Credit – 1
Grade – 9-12
Prerequisite – Membership in Needville High School Sapphires

Dance provides students with an exploration of the basic fundamentals of movement. Dance elements to be emphasized include ballet, folk/ethnic, jazz, tap, improve, modern and choreography. Students will develop kinesthetic awareness and an appreciation for the development of dance through the study of dance history.

TECHNOLOGY APPLICATIONS

Computer Science I (AP)
Credit – 1
Grade – 10-12
Prerequisite – Algebra 1

Computer Science I AP is a beginning course of Java programming with an emphasis on problem solving in preparation for the Advanced Placement A exam to be given in May at a cost to the student. Students will be expected to participate by solving problems, implementing those solutions on the computer, and then testing the problems using reasonable data to insure accuracy. Students will apply the programming skills developed in this course to text processing, simulations, data analysis, data management, games, and graphics. After the AP test students will learn how to build and program Lego Mindstorm robots. This course could be for students going into the work force or into the fields of computers, math, sciences, or engineering. **Students taking this course are highly encouraged to take the Advanced Placement Test upon completion.**

Independent Study in Technology Applications – Computer Programming III (Advanced)
Credit – 1
Grade – 11-12
Prerequisite – Computer programming II

This course provides opportunities for students desiring to continue their programming/computing skills. Students will get to choose the language and/or software that they will learn.

Independent Study in Technology Applications – Computer Programming IV (Advanced)
Credit – 1
Grade – 12
Prerequisite – Computer Programming III

This course provides opportunities for students desiring to continue their programming/computing skills. Students will get to choose the language and/or software that they will learn.

LOCAL ELECTIVES

Edgenuity

Credit – Determined by individual student completion
Grade – 2nd year 9-12
Prerequisite – Failure of one or more semesters of a core class with an average of 60-69, or credit advancement

This is a self-paced curriculum for students that wish to restore credit in a class that was previously failed, or to obtain credit for advancement. Students may not use e2020 to obtain credit in a TAKS/STAAR tested area. Students must gain at least one semester of credit per semester to remain eligible for e2020. These courses may require an additional fee set forth by the school district. Courses that are completed in e2020 are Pass/Fail and will not be used in calculating class rank or GPA.

Office Aide
Credit – None
Grade –12

This course is designed for seniors to assist the front office by answering phones, delivering messages, and any other duties assigned by the office staff.

Library Aide
Credit – None
Grade –12

This course is designed for seniors to assist the library staff by checking books out, shelving returned books, and any other duties assigned by the library staff.

EOC Skills (Remediation for EOC)
Credit – None
Grade – 10-12
Prerequisite – Failing scores on any one section of the EOC Test

This course is designed to help students who have not mastered EOC. The objectives tested are addressed in this class in preparation for the EOC Test, which is a requirement for graduation from high school.

PEER ASSISTANCE

Family and Community Services

Credit – 1
Grade – 11-12
Prerequisite – None

Family and Community Services is a laboratory-based course designed to involve students in realistic and meaningful community-based activities through direct service or service learning experiences. Students are provided opportunities to interact with and provide services to individuals, families, and the community through community or volunteer services. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics.

Peer Assistance and Leadership (PALS)
Credit – 1
Grade – 12
Prerequisite – Family and Community Services

Students are trained to interact with other students. Listening skills and other peer helper skills are developed. Students will work with high school, middle school, intermediate school, and elementary school students as needed.

Student Leadership
Credit – ½ to 1
Grade - 11-12
Prerequisite - None

This course provides an opportunity to study, practice, and develop group and individual leadership and organizational skills. Students enrolled in this course apply these skills in dealing with peers, school administration, and the community. This course takes a hands-on, lab-oriented approach to leadership by involving students in participatory leadership through project planning and implementation in which they build on prior knowledge and skills in order to strengthen their leadership expertise.

Career and Technical Education (CTE) Courses

The Needville Independent School District (NISD) and NISD Career and Technical Education Program does not discriminate on the basis of sex, disability, race, color, age or national origin in its educational programs, activities, or employment as required by Title IX, Section 504 and Title VI.

The Needville Independent School District (NISD) y NISD su Programa Educacional de Carerra y Technologia no discriminan en base a sexo, disabilidad, raza, color, edad u origen nacional en sus programas educativos, actividades, o empleo como lo requiere el Titulo IX, Seccion 504 y Titulo VI.

Graduation Endorsements & CTE Clusters

Business & Industry

- Agriculture, Food, and Natural Resources
- Architecture & Construction
- Arts, Audio/Video, Technology, and Communications
- Business Management and Administration
- Finance
- Hospitality & Tourism
- Information Technology
- Transportation, Distribution, and Logistics

Public Service

- Education and Training
- Health Science
- Human Services
- Law, Public Safety, Corrections and Security

STEM

- Science, Technology, Engineering, and Mathematics (STEM)

Multidisciplinary

- Various Career Clusters

AGRICULTURE, FOOD, & NATURAL RESOURCES

Principles of Agriculture, Food, and Natural Resources
Credit – 1
Grade – 9 – 10
Prerequisite – None

To be prepared for careers in agriculture, food, and natural resources, students must attain academic skills and knowledge in agriculture. This course allows students to develop knowledge and skills regarding career opportunities, personal development, globalization, industry standards, details, practices and expectations. To prepare for success, students need to have opportunities to learn, reinforce experience, apply, and transfer their knowledge and skills in a variety of settings

Landscape Design
Credit – ½
Grade – 10-12
Prerequisite – None

To develop an understanding of landscape design and management techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

Turf Grass
Credit – ½
Grade – 10-12
Prerequisite – None

To develop an understanding of turf grass management techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

Floral Design
Credit – 1
Grade – 10-12
Prerequisite – None

This course is designed to develop students' abilities to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students will learn about the traditions and contributions of diverse cultures. Students will classify and identify plants used in their arrangements, corsages, boutonnieres and floral designs for special occasions.
Note: This course satisfies a fine arts credit requirement for students on the Foundation High School Program.

Horticulture Science
Credit – 1
Grade – 10-12
Prerequisite – None

To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to horticulture and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer knowledge and skills in a variety of settings. This course is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production.

Livestock Production
Credit – 1
Grade – 10-12
Prerequisite – None

Students will use skills relating to livestock production, anatomy and physiology related to nutrition, reproduction, health and management of domesticated animals. Animal species to be addressed in this course may include, but are not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

Wildlife, Fisheries, and Ecology Management
Credit – 1
Grade – 10-12
Prerequisite – None

This course examines the management of game and non-game wildlife species, fish, and aqua crops and their ecological needs as related to current agricultural practices.

Equine Science
Credit – ½
Grade – 10-12
Prerequisite – None

The students in this course will learn skills related to animal systems and develop knowledge related to career opportunities. Suggested animals which may be studied in this course include, but are not limited to, horses, donkeys, and mules.

Veterinary Medical Applications
Credit – 1
Grade – 11-12
Prerequisite – Equine Science, Small Animal Management, or Livestock Production

To be prepared for careers in the field of animal science, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer knowledge and skills and technologies in a variety of settings. Topics covered in this course include, but are not limited to, veterinary practices as they relate to both large and small animal species.

Small Animal Management
Credit – ½
Grade – 10-12
Prerequisite – None

To be prepared for careers in the field of animal science, students need to enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer knowledge and skills in a variety of settings. Suggested small animals which may be included in the course of study include, but are not limited to, small mammals, amphibians, reptiles, avian, dogs, and cats.

Food Technology & Safety
Credit – 1
Grade – 10-12
Prerequisite – None

To be prepared for careers in value-added and food processing systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to value-added and food processing and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings. This course examines the food technology industry as it relates to food production, handling, and safety.

Professional Standards in Agribusiness
Credit – ½
Grade – 10-12
Prerequisite – None

Professional standards in Agribusiness primarily focuses on leadership, communication, employer/employee relationships, and problem solving as they relate to Agribusiness. To prepare for careers in Agribusiness systems, students must obtain academic skills and knowledge, acquire technical knowledge and skills related to leadership development in the workplace, and develop knowledge and skills regarding agriculture career opportunities, entry requirements and industry expectations.

Advanced Animal Science
Credit – 1
Grade – 11-12
Prerequisite – Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra l and Geometry; and Small Animal Management, Equine Science, or Livestock Production.

This course examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

ARCHITECTURE & CONSTRUCTION

Construction Technology I
Credit – 2
Grade – 10-12
Prerequisite – None

In Construction Technology I, students will gain knowledge and skills needed to enter the workforce as carpenters or building maintenance supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, tool usage, building materials, codes, and framing.

Construction Technology II
Credit – 2
Grade – 11-12
Prerequisite – Construction Technology I

In Construction Technology II, students will gain advanced knowledge and skills needed to enter the workforce as carpenters, building maintenance technicians, or supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will build on the knowledge base from Construction Technology I and are introduced to exterior and interior finish out skills.

Interior Design
Credit – 1
Grade - 10-12
Prerequisites – Algebra I & English I

Interior Design is a technical course that addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Individuals use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, and compete in industry.

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I Dual Credit
Credit – 1
Grade – 11-12
Prerequisite – None

In Heating, Ventilation, and Air Conditioning and Refrigeration Technology I, students will gain knowledge and skills needed to enter the industry as technicians in the HVAC and refrigeration industry or building maintenance industry, prepare for a postsecondary degree in a specified field of construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, principles of HVAC theory, use of tools, codes, and installation of HVAC and refrigeration equipment. Students must meet the deadlines for enrollment with TSTC. Students must also meet the attendance and grade requirements of Needville ISD and TSTC.

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II w/ Lab Dual Credit
Credit – 3
Grade – 11-12
Prerequisite – HVAC & Refrigeration I (additional grade requirement in HVAC 1 set by TSTC)

In Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II, students will gain advanced knowledge and skills needed to enter the industry as HVAC and refrigeration technicians or building maintenance technicians or supervisors, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, use of tools, codes, installation of commercial HVAC equipment, heat pumps, troubleshooting techniques, various duct systems, and maintenance practices. Students must meet the deadlines for enrollment with TSTC. Students must also meet the attendance and grade requirements of Needville ISD and TSTC.

ARTS, AUDIO/VIDEO TECHNOLOGY, & COMMUNICATIONS

Audio Video Production I
Credit – 1
Grade – 10-12
Prerequisite – None

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on preproduction, production, and post-production audio and video products.

Audio Video Production II
Credit – 1
Grade – 11-12
Prerequisite – Audio Video Production I

Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post-production products. This course may be implemented in an audio format or a format with both audio and video.

Fashion Design I
Credit – 1
Grade – 10-12
Prerequisite – None

In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

Fashion Design II
Credit – 1
Grade – 11-12
Prerequisite – Fashion Design I

In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

Professional Communication
Credit – ½
Grade – 9-12
Prerequisite – None

Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

BUSINESS, MANAGEMENT, & ADMINISTRATION

Principles of Business, Marketing, and Finance
Credit – 1
Grade – 9-11
Prerequisite – None

In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

Business Information Management I
Credit – 1
Grade – 9-12
Prerequisite – None

In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

Business Information Management II (Advanced)
Credit – 1
Grade – 10-12
Prerequisite – Business Information Management I
Certification Offered – Microsoft Office Specialist (MOS)

In Business Information Management II, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.

EDUCATION & TRAINING

Principles of Education and Training
Credit – 1
Grade – 9-10
Prerequisite – None

Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self-knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.

Instructional Practices in Education (Advanced)
Credit – 2
Grade – 11-12
Prerequisite – None

Instructional Practices is a field-based (practicum) internship that provides students with background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators or trainers in direct instructional roles with elementary-, middle school-, and high school aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, develop materials for educational environments, assist with record keeping, and complete other responsibilities of teachers, trainers, paraprofessionals, or other educational personnel.

Practicum in Education and Training (Advanced)
Credit – 2
Grade – 12
Prerequisite – Instructional Practices in Education and Training

Practicum in Education and Training is a field-based internship that provides students background knowledge of child and adolescent development principles as well as principles of effective teaching and training practices. Students in this course intern at our local elementary or middle schools and learn to plan and direct instruction and group activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.

FINANCE

Accounting I
Credit – 1
Grade – 10-12
Prerequisite – None

In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making.

Accounting II
Credit – 1
Grade – 11-12
Prerequisite – Accounting I

In Accounting II, students will continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources.
Note: This course satisfies a mathematics credit requirement for students on the Foundation High School Program.

Statistics and Business Decision Making
Credit – 1
Grade – 11-12
Prerequisite – Algebra II

Statistics and Business Decision Making is an introduction to statistics and the application of statistics to business decision making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid.
Note: This course satisfies a mathematics credit requirement for students on the Foundation High School Program.

HEALTH SCIENCE

Principles of Health Science
Credit – 1
Grade – 9-10
Prerequisite – None

This is the first of a sequence of courses offered in the Health Science Career Program, which prepares the student for a career as a health care professional. This course provides an overview of health care industry. Students will learn leadership skills, safety skills in health care setting, health care systems, anatomy and physiology, professionalism, overview of careers in the health care field, as well as life stages.

Health Science Theory
Credit – 1
Grade – 10-12
Prerequisite – Biology

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

Medical Terminology
Credit – 1
Grade – 11-12
Prerequisite – None

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

Anatomy and Physiology (Advanced)
Credit - 1
Grade –11-12
Prerequisite –Biology and Chemistry

In Anatomy and Physiology, students conduct field and laboratory investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study the following topics: the energy needs of the human body and the processes through which these needs are fulfilled, the responses of the human body to internal and external forces, the body processes that maintain homeostasis, the electrical conduction processes and interactions, the body's transport systems, environmental factors that affect the human body, comparisons between anatomical structures to physiological functions, the process of reproduction, growth, and development.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Practicum in Health Science – Certified Nursing Assistant Program (Advanced)
Credit – 2
Grade – 11-12
Prerequisite –Health Science Theory and Biology
Recommended Prerequisite - Medical Terminology
Certification Offered: Certified Nurse Aide/Assistant

The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students will be able to obtain CNA certification.

HOSPITALITY & TOURISM

Principles of Hospitality and Tourism
Credit – 1
Grade – 9-10
Prerequisite – None

Principles of Hospitality and Tourism introduces students to an industry that encompasses lodging, travel and tourism, recreation, amusements, attractions, and food/beverage operations. Students learn knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success in that industry.

Introduction to Culinary Arts
Credit – 1
Grade – 10-12
Prerequisite – None

Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.

Culinary Arts (Advanced)
Credit – 2
Grade – 11-12
Prerequisite – Introduction to Culinary Arts

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.

Advanced Culinary Arts (Advanced)
Credit – 2
Grade –12
Prerequisite – Culinary Arts

Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards in order to prepare students for success in higher education, certifications, and/or immediate employment.

HUMAN SERVICES

Principles of Human Services
Credit – 1
Grade – 9-10
Prerequisite – None

Principles of Human Services is a laboratory course that will enable students to investigate careers in the Human Services Career Cluster, including counseling and mental health, early childhood development, family and community, personal care, and consumer services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

Lifetime Nutrition & Wellness
Credit – ½
Grade – 10-12
Prerequisite – None

Lifetime Nutrition and Wellness is a laboratory course that allows students to use principles of lifetime wellness and nutrition to help them make informed choices that promote wellness as well as pursue careers related to hospitality and tourism, education and training, human services, and health sciences.

Child Development
Credit – 1
Grade – 10-12
Prerequisite – None

Child Development is a technical laboratory course that addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children.

Family and Community Services
Credit – 1
Grade – 11-12
Prerequisite – None

Family and Community Services is a laboratory-based course designed to involve students in realistic and meaningful community-based activities through direct service or service learning experiences. Students are provided opportunities to interact with and provide services to individuals, families, and the community through community or volunteer services. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics.

INFORMATION TECHNOLOGY

Principles of Information Technology
Credit - 1
Grade Placement - 9–10
Prerequisites - None

In Principles of Information Technology, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

Digital Media
Credit – 1
Grade – 10-12
Prerequisite – None

In Digital Media, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students will enhance reading, writing, computing, communication, and critical thinking and apply them to the IT environment.

Web Technologies
Credit – 1
Grade – 10-12
Prerequisite – None

In Web Technologies, students will learn to make informed decisions and apply the decisions to the field of IT. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students will enhance reading, writing, computing, communication, and critical thinking and apply them to the IT environment.

Computer Maintenance w/ Lab (Advanced)
Credit – 2
Grade – 10-12
Prerequisite – 1 Technology credit
Certification Offered – Comp TIA A+

In Computer Maintenance, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies.

Networking (Advanced)
Credit - 1
Grade Placement - 10–12
Prerequisite - Computer Maintenance
Certification Offered – Comp TIA Network+

In Networking, students will develop knowledge of the concepts and skills related to data networking technologies and practices to apply them to personal or career development. To prepare for success, students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Computer Technician Practicum (Advanced)
Credit – 2
Grade – 11-12
Prerequisite – Computer Maintenance
Certification Offered – Comp TIA Security +

In the Computer Technician Practicum, students will gain knowledge and skills in the area of computer technologies, including advanced knowledge of electrical and electronic theory, computer principles, and components related to the installation, diagnosis, service, and repair of computer based technology systems. Students will reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an instructor, with an industry mentor, or both.

Computer Programming I (Advanced)
Credit – 1
Grade – 9-12
Prerequisite – None

In Computer Programming I, students will acquire knowledge of structured programming techniques and concepts appropriate to developing executable programs and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer programming. Students will apply technical skills to address business applications of emerging technologies.

Computer Programming II (Advanced)
Credit – 1
Grade – 10-12
Prerequisite – Computer Programming I

In Computer Programming II, students will expand their knowledge and skills in structured programming techniques and concepts by addressing more complex problems and developing comprehensive programming solutions. Students will analyze the social responsibility of business and industry regarding the significant issues relating to environment, ethics, health, safety, and diversity in society and in the workplace as related to computer programming. Students will apply technical skills to address business applications of emerging technologies.

LAW, PUBLIC SAFETY, CORRECTIONS, & SECURITY

Principles of Law, Public Safety, Corrections, and Security
Credit – 1
Grade – 9 -10
Prerequisite – None

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, protective services, and corrections.

Forensic Science
Credit – 1
Grade – 11-12
Prerequisite - Biology and Chemistry

Forensic Science is a course that introduces students to the application of science to connect a violation of law to a specific criminal, criminal act, or behavior and victim. Students will learn terminology and procedures related to the search and examination of physical evidence in criminal cases as they are performed in a typical crime laboratory. Using scientific methods, students will collect and analyze evidence such as fingerprints, bodily fluids, hairs, fibers, paint, glass, and cartridge cases. Students will also learn the history and the legal aspects as they relate to each discipline of forensic science.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Law Enforcement I
Credit - 1
Grade Placement - 10–12
Prerequisite - None

Law Enforcement I is an overview of the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.

MANUFACTURING

Introduction to Welding
Credit – 1
Grade – 9-12
Prerequisite – None

Introduction to Welding will introduce welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success.

Welding I (Advanced)
Credit – 2
Grade – 10-12
Prerequisite – Principles of Manufacturing or Introduction to Welding
Certification Offered - NCCER Core

Welding I provides the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

Welding I Dual Credit
Credit – 2
Grade – 10-12
Prerequisite – Introduction to Welding

Welding I provides the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Students must meet the deadlines for enrollment with TSTC. Students must also meet the attendance and grade requirements of Needville ISD and TSTC.

Welding II (Advanced)
Credit – 2
Grade – 11-12
Prerequisite – Welding I
Certification Offered - NCCER Welding Level I

Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Welding II Dual Credit
Credit – 2
Grade – 11-12
Prerequisite – Welding I
Certification Offered - NCCER Welding Level I

Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Students must meet the deadlines for enrollment with TSTC. Students must also meet the attendance and grade requirements of Needville ISD and TSTC.

Practicum in Manufacturing (Advanced)
Credit - 2
Grade Placement - 12
Prerequisite - Welding II

The Practicum in Manufacturing course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

STEM

Robotics I (Advanced)
Credit – 1
Grade – 10-12
Prerequisite – Computer Programming I

In Robotics I, students will transfer academic skills to component designs in a project-based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Robotics II (Advanced)
Credit – 1
Grade – 11-12
Prerequisite – Robotics I

In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software to test their designs.
Note: This course satisfies a mathematics credit requirement for students on the Foundation High School Program.

Engineering Science (Advanced)
Credit – 1
Grade – 12
Prerequisite – Algebra II and Physics

Engineering Science is an engineering course designed to expose students to some of the major concepts and technologies that they will encounter in a postsecondary program of study in any engineering domain. Students will have an opportunity to investigate engineering and high-tech careers. In Engineering Science, students will employ science, technology, engineering, and mathematical concepts in the solution of real-world challenge situations. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Engineering Design and Presentation I
Credit – 1
Grade – 10-12
Prerequisites - Algebra I

Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Additionally, students explore career opportunities in engineering, technology, and drafting and what is required to gain and maintain employment in these areas.

Principles of Technology
(Physics credit; student cannot earn credit for both Physics and Principles of Technology)
Credit – 1
Grade – 11-12
Prerequisite - Biology and Algebra I

This course is an extensive hands-on course designed to provide a study in force, work, rate, resistance, energy, power and force transformers as applied to mechanical, fluid, thermal, and electrical energy that comprise simple technological devices and equipment. The course can be taken for physics graduation credit, is a Career and Technical Education funded course, and requires 40% of laboratory and fieldwork requirements.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Scientific Research and Design (Advanced)
Credit – 1
Grade – 11-12
Prerequisites - Biology, chemistry, and physics (concurrent or completed); must complete summer work requirements

This course is for the student who wants to explore scientific research and problem solving. This course is project based. The student will propose a research topic and upon approval research said topic and develop a plan of investigation. The student will maintain accurate data records and at the conclusion present the findings to a panel of scientific professionals.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Transportation, Distribution, and Logistics

Diesel Equipment Technology I Dual Credit
Credit – 2
Grade –11-12
Prerequisite – None

Diesel Equipment Technology I includes knowledge of the function and maintenance of diesel systems. Rapid advances in diesel technology have created new career opportunities and demands in the transportation industry. This course provides the knowledge, skills, and technologies required for employment in transportation systems. Students must meet the deadlines for enrollment with TSTC. Students must also meet the attendance and grade requirements of Needville ISD and TSTC.

Diesel Equipment Technology II Dual Credit
Credit – 2
Grade – 12
Prerequisite – Diesel Equipment Technology 2

Diesel Equipment Technology II includes knowledge of the function, diagnosis, and service of diesel equipment systems. Rapid advances in diesel technology have created new career opportunities and demands in the transportation industry. This course provides the advanced knowledge, skills, and technologies required for employment in transportation systems. Students must meet the deadlines for enrollment with TSTC. Students must also meet the attendance and grade requirements of Needville ISD and TSTC.

Career Development

Project-Based Research
Credit – 1
Grade –10-12
Prerequisite – None

Project Based Research is a course for students to research a real-world problem. Students are matched with a mentor from the business or professional community to develop an original project on a topic related to a career of interests. Students use scientific methods of investigation to conduct in-depth research, compile findings, and present their findings to an audience that includes experts in the field. To attain academic success, students must have opportunities to learn, reinforce, apply, and transfer their knowledge, skills, and technologies in a variety of settings.

Career Preparation 1 & 2
Credit – 2-3
Grade – 11-12
Prerequisite – None

Career Preparation is a work-based learning experience that combines classroom instruction with paid business and industry employment experiences and supports strong partnerships among school, business, and community stakeholders. The goal is to prepare students with a variety of skills for a fast-changing workplace. Employability skills, which include job-specific skills applicable to their training station, job interview techniques, communication skills, financial and budget activities, human relations, and portfolio development, are discussed. Career Preparation I effectively prepare students for college and career success.

Career and Technical Education (CTE) Endorsement Flow Charts

Business & Industry Endorsement: Agriculture, Food, & Natural Resources

Wildlife Pathway

Principles of Agriculture, Food, & Natural Resources

1 credit

9th - 10th grade

Wildlife, Fisheries, & Eco. Management

1 credit

10th - 12th grade

Livestock Production

1 credit

10th - 12th grade

Advanced Animal Science

1 credit

Prerequisites: Biology & Chemistry; Algebra I & Geometry; and either Small Animal Management, Equine Science, or Livestock Production.

****Science Credit****

Animal Science Pathway

Principles of Agriculture, Food, & Natural Resources

1 credit

9th - 10th grade

Small Animal Management & Equine Science

0.5 credit - 1.0 credit

10th - 12th grade

Livestock Production

1 credit

10th - 12th grade

Veterinary Medical Applications

1 credit

Prerequisites: Equine Science, Small Animal Management, or Livestock Production

Advanced Animal Science

1 credit

Prerequisites: Biology & Chemistry; Algebra I & Geometry; and either Small Animal Management, Equine Science, or Livestock Production.

****Science Credit****

Business & Industry Endorsement: Agriculture, Food, & Natural Resources

Plant Science Pathway

Principles of Agriculture, Food, & Natural Resources
1 credit
9th - 10th grade

Landscape Design & Management
0.5 credit
10th - 11th grade

Turf Grass Management
0.5 credit
10th - 12th grade

Horticulture Science
1 credit
10th - 12th grade

Floral Design
1 credit
10th - 12th grade
****Fine Arts Credit****

Agribusiness Pathway

Principles of Agriculture, Food, & Natural Resources
1 credit
9th - 10th grade

Principles of Business, Marketing, & Finance
1 credit
9th - 11th grade

Professional Standards of Agribusiness
0.5 credit
10th - 12th grade

Livestock Production
1 credit
10th - 12th grade

Advanced Animal Science
1 credit
Prerequisites: Biology & Chemistry; Algebra I & Geometry; and either Small Animal Management, Equine Science, or Livestock Production.
****Science Credit****

Business & Industry Endorsement: Arts, Audio/Visual, Technology, & Communications

Design Pathway

Fashion Design I
1 credit
10th - 12th grade

Digital Media
1 credit
10th - 12th grade

Fashion Design II
1 credit
Prerequisite: Fashion Design I

Interior Design
1 credit
Prerequisites: Algebra I & English I

Media Technology Pathway

Principles of Information Technology
1.0 credit
9th - 10th grade

Web Technologies
1 credit
10th - 12th grade

Audio/Video Production I
1 credit
10th - 12th grade

Audio/Video Production II
1 credit
Prerequisite: Audio/Visual Production I

Business & Industry Endorsement: Finance

Business Management & Administration Pathway

Principles of Business, Marketing, & Finance
1 credit
9th - 11th grade

Principles of Hospitality & Tourism
1 credit
9th - 10th grade

Business Information Management I
1 credit
9th - 12th grade

Business Information Management II
1 credit
Prerequisite: Business Information Management I

Accounting & Finance Pathway

Principles of Business, Marketing, & Finance
1 credit
9th - 11th grade

Accounting I
1 credit
10th - 12th grade

Accounting II
1 credit
Prerequisite: Accounting I
****Math Credit****

Statistics & Business Decision Making
1 credit
Prerequisite: Algebra II
****Math Credit****

Business & Industry Endorsement: Information Technology

Web Design Development Pathway

Principles of Information Technology
1.0 credit
9th - 10th grade

Business Information Management I
1 credit
9th - 12th grade

Digital Media
1 credit
10th - 12th grade

Web Technologies
1 credit
10th - 12th grade

Computer Maintenance & Networking Pathway

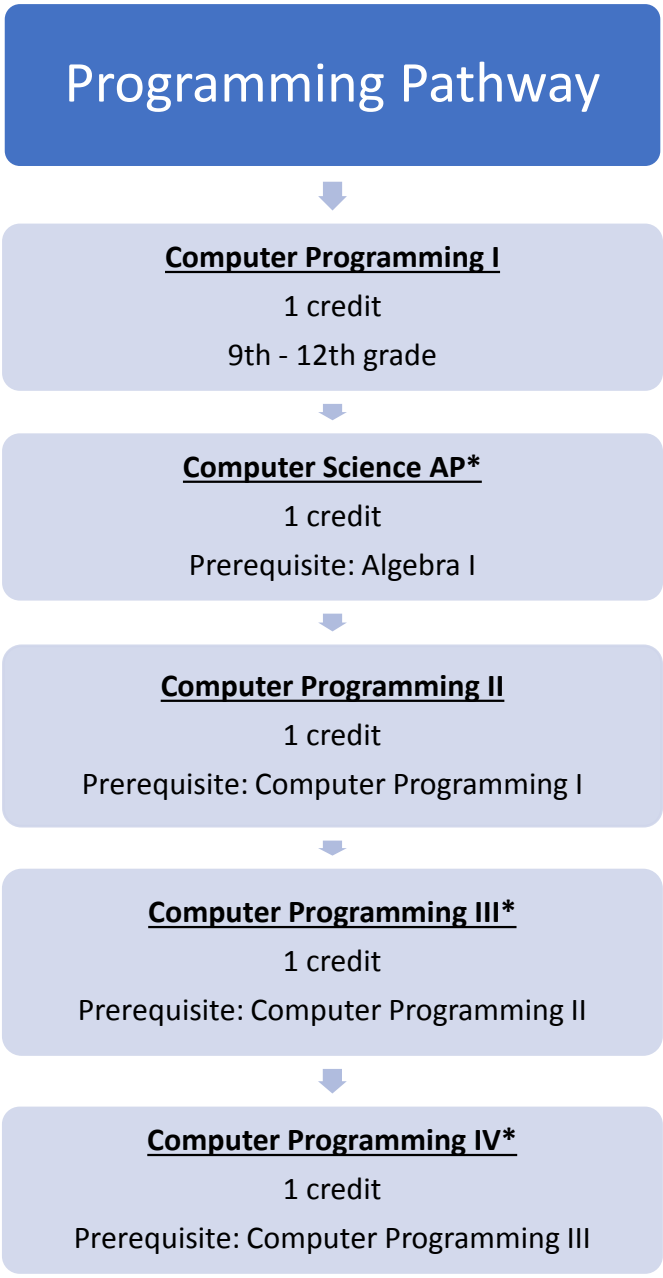
Principles of Information Technology
1.0 credit
9th - 10th grade

Computer Maintenance
2 credits
Prerequisite: 1 credit in any technology course

Networking
1 credit
Prerequisite: Computer Maintenance

Computer Technician
2 credits
Prerequisite: Computer Maintenance

Business & Industry Endorsement: Information Technology



**These courses are not CTE, but can be taken as part of the programming pathway.*

Business & Industry Endorsement: Architecture & Construction

Architectural Construction Pathway

Engineering Design & Presentation I
1 credit
Prerequisite: Algebra I

Interior Design
1 credit
Prerequisites: Algebra I & English I

Construction Tech I
2 credits
10th - 12th grade

Construction Tech II
2 credits
Prerequisite: Construction Tech I

HVAC & Refrigeration Pathway

Principles of Information Technology
1.0 credit
9th - 10th grade

Construction Tech I
2 credits
10th - 12th grade

HVAC & Refrigeration 1 Dual Credit
2 credit
11th - 12th grade

HVAC & Refrigeration 2 Dual Credit
2 credits
Prerequisite: HVAC & Refrigeration 1

Business & Industry Endorsement: Hospitality & Tourism

Culinary Arts Pathway

Principles of Hospitality & Tourism
1 credit
9th - 10th grade

Introduction to Culinary Arts
1 credit
10th - 12th grade

Culinary Arts
2 credits
Prerequisite: Introduction to Culinary Arts

Advanced Culinary Arts
2 credits
Prerequisite: Culinary Arts

Business & Industry Endorsement: Manufacturing

Welding Pathway

Inroduction to Welding

1 credit

9th - 12th grade

Welding I

2 credits

Prerequisite: Introduction to Welding

*** Also Available as a Dual Credit opportunity with TSTC***

Welding II

2 credits

Prerequisites: Welding I

*** Also Available as a Dual Credit opportunity with TSTC***

Practicum in Manufacturing

2 credits

Prerequisites: Welding II

Public Service Endorsement: Health Science

General Health Science Pathway

Principles of Health Science
1 credit
9th - 10th grade

Health Science Theory
1 credit
Prerequisite: Biology

Medical Terminology
1 credit
11th - 12th grade

Anatomy & Physiology
1 credit
Prerequisite: Biology and Chemistry
****Science Credit****

Certified Nursing Assistant Pathway

Principles of Health Science
1 credit
9th - 10th grade

Health Science Theory
1 credit
Prerequisite: Biology

Medical Terminology
1 credit
11th - 12th grade

Anatomy & Physiology
1 credit
Prerequisite: Biology and Chemistry
****Science Credit****

Practicum in Health Scienc CNA
2 credits
Prerequisite: Health Science Theory, and Biology
Recommended Prerequisite: Medical Terminology

Public Service Endorsement: Education & Training

Education Pathway

Principles of Education & Training

1 credit

9th - 10th

Child Development

1 credit

10th - 12th grade

Instructional Practices in Education

2 credits

11th - 12th grade

Practicum in Education & Training

2 credits

Prerequisite: Instructional Practices in Education

Public Service Endorsement: Human Services

Childcare Management Pathway

Principles of Human Services
1 credit
9th - 10th grade

Principles of Education & Training
1 credit
9th - 10th

Child Development
1 credit
10th - 12th

Lifetime Nutrition & Wellness
0.5 credit
10th - 12th

Family & Community Service
1 credit
11th - 12th grade

Public Service Endorsement: Law, Public Safety, Corrections, & Security

Law Science Pathway

Principles of Law, Public Safety, Corrections, and Security

1 credit

9th - 10th grade

Law Enforcement I

1 credit

10th - 12th grade

Forensic Science

1 credit

Prerequisites: Biology & Chemistry

****Science Credit****

Law Enforcement II

1 credit

Prerequisite: Law Enforcement II

(Future Offering)

STEM Endorsement: Science, Technology, Engineering, & Mathematics

Engineering Pathway

Engineering Design & Presentation I
1 credit
Prerequisite: Algebra I

Computer Programming I
1 credit
9th - 12th grade

Engineering Science
1 credit
Prerequisites: Algebra II & Physics/IPC
****Science Credit****

Scientific Research & Design
1 credit
Prerequisites: Biology, Chemistry, Physics
****Science Credit****

Robotics Pathway

Computer Programming I
1 credit
9th - 12th grade

Robotics I
1 credit
Prerequisite: Computer Programming I

Robotics II
1 credit
Prerequisite: Robotics I
****Math Credit****

Engineering Science
1 credit
Prerequisites: Algebra II & Physics
****Science Credit****

Scientific Research & Design
1 credit
Prerequisites: Biology, Chemistry, Physics
****Science Credit****

To earn the STEM CTE endorsement, students must also have:

- **4 math credits (Algebra II or higher)**
- **Chemistry**
- **Physics or Principles of Technology**