# SCOTLAND HIGH SCHOOL

# Course Selection Guide 2021 - 2022



1000 West Church Street Laurinburg, NC 28352 (910) 276-7370 Graduation Requirements

Content Area	Required Courses
English (4 Credits)	□ English I □ English II or English II Honors □ English III or English III Honors □ English IV or English IV Honors
Mathematics (4 Credits) (If taken Math 1 in the 8th grade, students will still need (4) additional maths for graduation requirements)	□ Math I □ Math II or Math II Honors □ Math III or Math III Honors □ CCRG Math, Math IV, Discrete Math Honors, or Honors PreCalculus *
Science (3 Credits)	<ul> <li>□ Earth and Environmental Science or EES Honor</li> <li>□ Biology or Biology Honors</li> <li>□ Physical Science*</li> <li>□ Chemistry or Chemistry Honors*</li> <li>□ Physics Honors*</li> </ul>
Social Studies (4 Credits)	<ul> <li>□ World History or World History Honors</li> <li>□ Civics and Economics or Honors</li> <li>□ American History I or America History I Honors</li> <li>□ American History II or American History II Honors</li> <li>□ AP US History (Must be taken with AP English Language)</li> </ul>
Second Language	Not required for graduation, but required for admission to the UNC System.  □ Foreign Language (I) □ Foreign Language (II)
Health and Physical Education (2 credits required for Scotland County Schools)	<ul> <li>□ Health/PE (Required)</li> <li>□ PE I</li> <li>□ PE II</li> <li>□ Boys Strength Training</li> <li>□ Girls Strength Training</li> </ul>
Electives	<ul> <li>(2) Elective credits of any combination from either Career and Technical Education (CTE) or Arts Education  □ (1) Credit □ (1) Credit</li> <li>(4) Elective Credits (Four Course Concentration) strongly recommended from one of the following:  - Career and Technical Education (CTE)  - JROTC</li> </ul>
	- Fine Arts - Advanced Placement Courses □ (1) Credit □ (1) Credit □ (1) Credit Additional Electives:
	□ (1) Credit □ (1

# **ENGLISH**

# **ENGLISH I**

This academic course is designed for the student who aspires to post-secondary college or vocational experience. A survey of literary types, this course focuses on reading, writing, speaking and listening, and language. Students should expect homework assignments and/or compositions that reinforce classroom instruction. Writing instruction at this level focuses on mechanical correctness, fluency, and structure. The student is expected to function at grade level in communication and thinking skills.

# ENGLISH I HONORS

This honors course is designed to challenge students. It concentrates on developing reading, writing, and critical thinking skills through an intensive survey of literary types and appropriate oral and written responses. The course provides a review of grammar, mechanics, vocabulary, and usage as needed. This college preparatory course focuses on the development of complex thought processes, independence in learning, and creative expression through discussion and frequent writing assignments. Homework is a reinforcement and extension of classroom instruction.

#### **ENGLISH II**

PREREQUISITE: English I

This academic world literature course is designed for the student who aspires to post-secondary college or vocational experience. This class focuses on reading, writing, speaking and listening, and language. Students should expect homework assignments and/or compositions that reinforce classroom instruction. Writing instruction at this level focuses on mechanical correctness, fluency, and structure. The student is expected to function at grade level in communication and thinking skills.

# **ENGLISH II HONORS**

PREREQUISITE: English I or English I Honors

This honors course is designed to challenge students. This course concentrates on developing reading, writing, and critical thinking skills through an intensive study of a variety of selected world literature and appropriate oral and written responses. The course provides a review of grammar, mechanics, vocabulary, and usage as needed. This college preparatory course focuses on the development of complex thought processes, independence in learning, and creative expression through discussion and frequent writing assignments. Homework is a reinforcement and extension of classroom instruction.

# **ENGLISH III**

PREREQUISITE: English II

This academic American literature course is designed for the student who aspires to post-secondary college or vocational experience. The course addresses reading, writing, speaking and listening, and language. Students should expect homework assignments and/or compositions that reinforce classroom instruction. Writing instruction at this level focuses on mechanical correctness, fluency, and structure. The student is expected to function at grade level in communication and thinking skills.

# **ENGLISH III HONORS**

PREREQUISITE: English II or English II Honors

This honors course is designed to challenge students. This course concentrates on developing reading, writing, and critical thinking skills through an intensive study of selected American literature and appropriate oral and written responses. The course provides a review of grammar, mechanics, vocabulary, and usage as needed. This college preparatory course focuses on the development of complex thought processes, independence in learning, and creative expression through discussion and frequent writing assignments. Homework is a reinforcement and extension of classroom instruction.

# ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION

PREREOUISITE: English III Honors

This college-level course provides an analytical and historical study of American literature and language in a comprehensive program of reading, writing, and critical thinking. As preparation to take the Advanced Placement Test in Language and Composition, students read, discuss, analyze, and write about challenging works of recognized literary merit to develop honest, concise, and effective use of language and the ability to organize ideas in a clear, coherent, and persuasive way. Independent literary analysis and a total mastery of writing skills are goals of the course. Because this course meets the needs of academically gifted or highly motivated advanced students who hope to bypass introductory courses in composition and literature when they enter college, students in an AP course should expect assignments and instruction paced at the college level. Students enrolled in this course are expected to take The College Board Advanced Placement Test. THIS COURSE SERVES AS THE ENGLISH III REQUIREMENT. Students must simultaneously enroll in AP US History.

# **ENGLISH IV**

PREREQUISITE: English III

Through the study of British literature, this course addresses reading, writing, speaking and listening, and language. Students should expect homework assignments and/or compositions that reinforce classroom instruction. Writing instruction at this level focuses on mechanical correctness, fluency, and structure. The student is expected to function at grade level in communication and thinking skills. CCRG materials will be incorporated to prepare students for post-secondary education.

# **ENGLISH IV HONORS**

PREREQUISITE: English III or English III Honors

This honors course is designed to challenge the academically advanced/gifted, highly motivated student. This course concentrates on developing reading, writing, and critical thinking skills through an intensive study of selected British literature and appropriate oral and written responses. The course provides a review of grammar, mechanics, vocabulary, and usage as needed. Students are expected to function at or above grade level in communication and thinking skills.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION PREREQUISITE: English III Honors or AP English Language and Comp. Summer Reading Assignment Required. This college-level course provides an analytical and historical study of British and world literature in a comprehensive program of reading, writing, and critical thinking. As preparation to take the Advanced Placement Test in Literature and Composition, students read, discuss, analyze, and write about challenging works of recognized literary merit to develop honest, concise, and effective use of language and the ability to organize ideas in a clear, coherent, and persuasive way. Independent literary analysis and a total mastery of writing skills are goals of the course. Because this course meets the needs of academically gifted or highly motivated advanced students who hope to bypass introductory courses in composition and literature when they enter college, students in an AP course should expect assignments and instruction paced at the college level. Students enrolled in this course are expected to function above grade level and take The College

Board Advanced Placement Test. STUDENTS MUST ENROLL IN ENGLISH IV HONORS ALSO.

# **MATHEMATICS**

# FOUNDATIONS OF MATH I (ELECTIVE CREDIT)

Foundations of Algebra provides learners with an opportunity to review and study foundational topics for higher-level mathematics. Topics include: working with different forms of numbers (rates, ratios, fractions, percents); exponents and exponential notation; solving percent problems using proportions; integers; square roots; simplifying numerical and algebraic expressions; solving one variable equations; linear relationships; and statistics. Students will solve relevant and authentic problems using manipulatives and appropriate technology. Students will be assigned to this course on an as-needed basis.

# **MATH I**

Course Description: The concepts in this course lay the foundation for more advanced courses. This course provides students the opportunity to study: expressions in the real number system, creating and reasoning with equations and inequalities, interpreting and building simple functions, expressing geometric properties and interpreting categorical and quantitative data. These standards are listed in conceptual categories: Number and Quantity, Algebra, Functions, Modeling, Geometry, Statistics and Probability

# **MATH II**

PREREQUISITE: Math I

Course Description: The high school standards in Math II specify the mathematics that all students should study in order to be college and career ready. This course continues the progression of the standards established in Math I. In addition to these standards, Math II includes polynomials, congruence and similarity of figures, trigonometry with triangles, modeling with geometry, probability, making inferences and justifying conclusions. These standards are listed in conceptual categories: Number and Quantity, Algebra, Functions, Modeling, Geometry, Statistics and Probability

# **MATH II HONORS**

PREREQUISITE: Math I

Course Description: Math II Honors demands a more challenging approach to the student's study of polynomials, congruence and similarity of figures, trigonometry with triangles, modeling with geometry, probability, making inferences and justifying conclusions. Emphasis will be placed on higher order thinking skills that impact practical and increasingly complex applications in a problem centered, connected approach. Students will be expected to describe and translate among graphic, algebraic, numeric, tabular, and verbal representations of relationships and use those representations to solve problems. Appropriate technology will be used regularly for instruction and assessment. These standards are listed in conceptual categories: Number and Quantity, Algebra, Functions, Modeling, Geometry, Statistics and Probability

# MATH III

PREREQUISITE: Math II or II Honors

Course Description: The high school standards in Math III specify the mathematics that all students should study in order to be college and career ready. This course continues the progression of the standards established in Math II. In addition to these standards, Math III includes: more in depth coverage of the complex number system, inverse functions, trigonometric functions and the unit circle, and the geometric concepts of conics and circles. These standards are listed in conceptual categories: Number and Quantity, Algebra, Functions, Modeling, Geometry, Statistics and Probability

# MATH III HONORS

**PREREOUISITE**: Math II or II Honors

Course Description: Math III Honors demands a more challenging approach to the student's study of the complex number system, inverse functions, trigonometric functions and the unit circle, the geometric concepts of conics and circles, making inferences and justifying conclusions. Emphasis will be placed on higher order thinking skills that impact practical and increasingly complex applications in a problem-centered, connected approach. Students will be expected to describe and translate among graphic, algebraic, numeric, tabular, and verbal representations of relationships and use those representations to solve problems. Appropriate technology will be used regularly for instruction and assessment. These standards are listed in conceptual categories: Number and Quantity, Algebra, Functions, Modeling, Geometry, Statistics and Probability

# **CCRG MATH**

#### REQUIRED FOR STUDENTS WITH UNWEIGHTED GPA<2.8

Course Description: CCRG Math prepares students for enrollment in the NC Community College system. The course consists of modules covering Math I, II and III. Each module culminates with a Placement Test that counts towards the Community College placement exams. This course is required for seniors with an Unweighted GPA < 2.8, and satisfies the 4<sup>th</sup> Math Course requirement for graduation.

# **MATH IV**

# PREREQUISITE: Math III

The primary focus of this course is on functions and statistical thinking, continuing the study of algebra, functions, trigonometry and statistical concepts previously experienced in NC Math 1-3. The course is designed to be a capstone to introductory statistical concepts. Additionally, the course intentionally integrates concepts from algebra and functions to demonstrate the close relationship between algebraic reasoning as applied to the characteristics and behaviors of more complex functions. Students will be prepared for college level algebra and statistics or as a bridge to prepare students for Precalculus or other advanced math courses.

# DISCRETE MATHEMATICS FOR COMPUTER SCIENCE HONORS

PREREQUISITE: Math III

The purpose of this course is to introduce discrete structures that are the backbone of computer science. Discrete mathematics is the study of mathematical structures that are countable or otherwise distinct and separable. The mathematics of modern computer science is built almost entirely on discrete mathematics, such as logic, combinatorics, proof, and graph theory. Students will be prepared for college level algebra, statistics, and discrete mathematics courses.

# PRE-CALCULUS HONORS

PREREQUISITE: Honors Math III

Pre-calculus curriculum includes a complete study of trigonometry, as well as advanced algebra topics, analytic geometry, series and sequence, data analysis, vectors, and limits. Applications and modeling are included throughout the course of study. Appropriate technology, from manipulatives to calculators and application software, is used for instruction and assessment. Students must have extensive knowledge of the graphics calculator. A student cannot receive math graduation credit for Precalculus and Advanced Functions and Modeling; one must count as an elective.

# ADVANCED PLACEMENT CALCULUS: AB

PREREQUISITE: Pre-calculus

The AP Calculus curriculum includes limits, continuity, derivatives with applications, and elementary integration with applications. This is a college-level course. Use of computers and graphing calculators play an important role in this course. For each session of classroom instruction the student is expected to spend, as a minimum, an equal amount of time outside the classroom for review, written assignments, and preparation. It is expected that students enrolled in this course will take the College Board Advanced Placement Exam.

# ADVANCED PLACEMENT CALCULUS: BC

PREREQUISITE: AP Calculus AB

The BC level of AP Calculus revisits some topics introduced in the AB course. Topics include differentials, integrals, infinite series, and differential equations. In addition, the curriculum for this course includes convergence and divergence of sequences and series, parametric representation of curves, polar curves, and additional integration techniques. This is a college-level course. Use of computers and graphing calculators play an important role in this course. For each session of classroom instruction, the student is expected to spend, as a minimum, an equal amount of time outside the classroom for review, written assignments, and preparation. It is expected that students enrolled in this course will take the College Board Advanced Placement Exam.

# **SCIENCE**

# LIFE SCIENCE

Life Science provides learners with an opportunity to review and study introductory topics for biological concepts and principles. Students will also gain an understanding of plant and animal processes. This course is designed as a foundational course for Biology. Students will be assigned to this course on an as-needed basis.

# **BIOLOGY**

This course is designed to develop student understanding of biological concepts and principles and promote an understanding of plant and animal processes from the cellular to the multicellular level. Laboratory work is an important part of each phase of the course. The final exam is the North Carolina Biology End-of-Course Test

# **BIOLOGY HONORS**

Content and principles for biology are taught but in greater depth and magnitude. Students do extensive research, independent study, and laboratory investigations. This course is designed for students who have shown superior achievement and high interest in previous science courses. The final exam is the North Carolina Biology End-of-Course Test.

# ADVANCED PLACEMENT BIOLOGY

PREREQUISITE(s): Biology Honors and Math II Honors

Advanced Placement Biology is equivalent to a two-semester college biology course that includes eight major themes: science as a process, evolution, energy transfer, continuity and change, relationship of structure to function, regulation, interdependence in nature, and science, technology, and society. At the completion of this course, students will be required to take the Advanced Placement Exam.

#### **CHEMISTRY**

PREREQUISITE(s): Math II

Chemistry is the study of the composition and properties of matter. It provides an introduction to the theories concerning the structure of matter and includes mathematical problems that illustrate these theories. Laboratory experiences and demonstrations are integral parts of this course.

# **CHEMISTRY HONORS**

PREREQUISITE(s): Math II Honors

The concepts and principles of chemistry are presented in greater depth and at a more rapid pace than in Academic Chemistry. Students perform extensive research, independent study, and laboratory work. Theoretical and mathematical relationships in chemistry are studied.

# ADVANCED PLACEMENT CHEMISTRY

PREREQUISITE(s): Chemistry/Honors Chemistry and Math III Honors

Students study the basic principles and concepts covered in an introductory "General Chemistry" college-level course. Topics include chemical composition, stoichiometry, atomic structure, bonding, molecular structure, chemical reactions, states of matter, and solutions. It is expected that students enrolled in this course will take the College Board Advanced Placement Test.

# EARTH AND ENVIRONMENTAL SCIENCE

Students are provided an in-depth study of the earth processes including plate tectonics, rock and mineral formation, and landforms. Laboratory work is a major component of the program. Environmental Science provides an opportunity for students to study man's interaction with the environment. Topics include pollution, conservation of natural resources, environmental management and planning, and society's impact on the environment. The student is also provided with an opportunity to study the mutual relationships between living organisms and physical factors in their environments. Topics include but are not limited to: biotic and abiotic factors, energy relationships, biogeologic cycles, population dynamics, ecosystems, and biogeography. Laboratory activities are an integral part of this course.

# ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

Teacher Recommendation Required and successful completion of Honors Biology.

The AP Environmental Science course is designed to be the equivalent of an introductory college course in environmental science. The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. It is expected that students enrolled in this course will take the College Board Advanced Placement Test

# PHYSICAL SCIENCE

This course is designed as an entry-level course. The concepts of physics and chemistry are taught using both laboratory approaches and inquiry teaching. Students use their mathematical skills in the applications of science. Science projects and other independent student research provide students with a better understanding of the processes of science.

# **SOCIAL STUDIES**

# **WORLD HISTORY**

This course will address six periods in the study of world history, with a key focus of study from the mid-15th century to the present. Students will study major turning points that shaped the modern world. The desired outcome of this course is that students develop understandings of the current world issues and relate them to their historical, political, economic, geographical, and cultural contexts. Students will broaden their historical perspectives as they explore ways societies have dealt with continuity and change, exemplified by concepts such as civilization, revolution, government, economics, war, stability, movement, and technology.

# WORLD HISTORY HONORS

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# **AMERICAN HISTORY I**

In this course students will examine the historical and intellectual origins of the US from the European exploration and colonial settlement to the Revolutionary and Constitutional eras. Students will learn about the important political and economic factors that contributed to the development of colonial America and the outbreak of the American Revolution, as well as the consequences of the Revolution, including the writing and key ideas of the US Constitution. This course will guide students as they study the establishment of political parties, America's westward expansion, the growth of sectional conflict, how that sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction.

# **AMERICAN HISTORY I HONORS**

This course is designed to challenge students. In this course students will examine the historical and intellectual origins of the US from the European exploration and colonial settlement to the Revolutionary and Constitutional eras. Students will learn about the important political and economic factors that contributed to the development of colonial America and the outbreak of the American Revolution, as well as the consequences of the Revolution, including the writing and key ideas of the US Constitution. This course will guide students as they study the establishment of political parties, America's westward expansion, the growth of sectional conflict, how that sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction.

# **AMERICAN HISTORY II**

In this course students will examine the political, economic, social, and cultural development of the US from the end of the Reconstruction era to the present times. Students will explore the change in the ethnic composition of American society, the movement toward equal rights for racial minorities and women, and the role of the US as a major world power. An emphasis will be placed on the expanding role of the federal government and the federal courts, as well as the continuing tension between the individual and the state. The desired outcome of this course is for students to develop an understanding of the cause –and –effect relationship between past and present events, recognize patterns of the interactions, and understand the impact of events on the US in an interconnected world.

# **AMERICAN HISTORY II HONORS**

This honors course is designed to challenge students. In this course students will examine the political, economic, social, and cultural development of the US from the end of the Reconstruction era to the present times. Students will explore the change in the ethnic composition of American society, the movement toward equal rights for racial minorities and women, and the role of the US as a major world power. An emphasis will be placed on the expanding role of the federal government and the federal courts, as well as the continuing tension between the individual and the state. The desired outcome of this course is for students to develop an understanding of the cause —and —effect relationship between past and present events, recognize patterns of the interactions, and understand the impact of events on the US in an interconnected world.

# **CIVICS AND ECONOMICS**

This course provides students with a framework for understanding the basic tenets of American democracy, practices of American government as established by the US Constitution, basic concepts of American politics and citizenship, and concepts in micro- and macroeconomics and personal finance. The goal of this course is to help to prepare students to become responsible and effective citizens in the interdependent world.

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# AP UNITED STATES HISTORY

**PREREQUISITE**: American History I Honors

This course traces United States history from Pre-Columbian times to the present with an emphasis on the social, cultural, economic, and political forces shaping the American scene. This course is a college-level course which prepares students for college credit and placement. Students are encouraged to take the AP exam. Students must be simultaneously enrolled in AP English Language and Composition.

# AP US GOVERNMENT AND POLITICS

Students will analyze US government and politics. Students study theoretical perspectives and explanations for various behaviors and outcomes. Topics to be covered include constitutional underpinnings of US Government; political beliefs and behaviors; institutions of national government; public policy; civil rights and civil liberties; and political parties, interest groups, and mass media. Outside reading, projects, and writing are required. Students are encouraged to take the AP exam. Students must be simultaneously enrolled in Civics and Economics Honors.

# Foreign Language

# AMERICAN SIGN LANGUAGE I

This course provides students with the most basic functions of signed communications and aspects of the deaf culture. The emphasis is placed on the development of learning to fingerspell, to use signed communications from vocabulary development of specific words up through the sentence level (500 words) considering the grammatical and syntactical differences in spoken English and American Sign Language. Students will also describe categories of hearing loss and other cultural implications of deafness. Students will be evaluated on accuracy both expressively and receptively of signed words.

# AMERICAN SIGN LANGUAGE II

PREREQUISITE: American Sign Language I

This course provides students with the opportunity to continue the development of their signing skills. Students will develop a larger vocabulary (1200+ words) and greater facility with American Sign Language through the paragraph level. Students will participate in simple conversational situations. Students will be able to satisfy basic survival needs and interact on issues of everyday life both receptively and expressively. Students will be evaluated on fluency, speed, and accuracy.

# **SPANISH I**

This course provides the most basic functions of the language and elements of the culture. The emphasis is placed on the development of the four skills of listening, speaking, reading, and writing with the given context extending outside the classroom setting when possible. The context focuses on the students' lives and experiences and includes an exposure to everyday customs and lifestyles. Grammar is integrated throughout the course and is selected according to the language conventions (functions).

# **SPANISH II**

PREREQUISITE: Spanish I

This course provides students with opportunities to continue the development of their listening speaking, reading and writing skills. Students participate in simple conversational situations. They are able to satisfy basic survival needs and interact on issues of everyday life. They compose related sentences, which narrate, describe, compare, and summarize familiar topics from the target culture. Focus is placed upon understanding main ideas and concepts.

# **SPANISH III Honors**

PREREQUISITE: Spanish II

This course provides students with additional opportunities to expand their listening, speaking, reading and writing skills as they create texts with the language and as they access short literary tests, authentic materials, and media on generally familiar topics. Students satisfy limited communication and social interaction demands as well as initiate and maintain face to face communication. They identify main ideas and significant details in discussions, presentations, and written texts within cultural context; read and interpret authentic materials; narrate and describe in sentences, groups of related sentence, and short cohesive passages in present past and future time; they compose sentences, announcements, personal notes and advertisements; they use both subjunctive and conditional tenses in addition to previously learned materials.

# **SPANISH IV Honors**

**PREREQUISITE**: Spanish III Honors

This course is to enable students to communicate in writing and in extended conversations on a variety of topics. Students begin to narrate, discuss, and support fairly complex ideas and concepts using concrete facts and topics in a variety of time sequences. They satisfy routine social demands and meet most social requirements. Another emphasis of this course is on culture and literature. Emphasis is placed on independent reading. Finer points of grammar are studied to aid oral and written communication.

# JOURNALISM/PUBLICATIONS

# **JOURNALISM I**

This writing-intensive course focuses on three units of beginning journalism: journalism history, beginning newspaper writing, and yearbook layout and productions. Students will spend the first unit investigating the history of mass media devices including newspapers, magazines, the radio and television before learning basic news writing skills and techniques to produce news articles.

# **JOURNALISM II**

# PREREQUISITE: Journalism I

This writing intensive course allows students to produce original works for the school newspaper, The Bagpiper, and the school yearbook, The Scotsman. Students will also produce other publication materials including an original magazine and school-related posters and advertisements.

# JOURNALISM III

**Application Process Required** 

This course provides students with leadership roles with The Bagpiper and The Scotsman. Students will be tasked with editing experience, as well as producing original copy and photography. Students will master newspaper and yearbook writing and layout.

# YEARBOOK/JOURNALISM IV

**Application Process Required** 

This course provides students with leadership roles with The Bagpiper and The Scotsman. Students will be tasked with editing experience, as well as producing original copy and photography. Students will master newspaper and yearbook writing and layout.

# **JROTC**

# **JROTC I**

This is an introductory course designed for 9th graders; however, it is available to any grade. Basic knowledge is presented as a foundation for the grade level to follow. Subjects include effective study techniques, leadership fundamentals, basic citizenship and ethical standards, goal setting, and self-discipline. Cadets learn to march, participate in physical fitness, and organization using a portfolio. Special skills include introduction to competitive military drill, military color guard and rifle marksmanship.

# **JROTC II**

PREREQUISITE: JROTC I

This second level of study includes leadership principles and traits, leadership styles, leadership motivation, problem solving, authority and responsibility, human behavior, public speaking, and physical fitness. Special team skills include competitive military drill, military color guard and rifle marksmanship.

# **JROTC III**

PREREQUISITE: JROTC II Course Note: Teacher recommendation

This third level of study emphasizes leadership training and leadership application. The cadet is involved in leadership roles and situations. Cadets also concentrate on problem solving and decision making, fundamentals of command and management, counseling skills, and citizenship. Special skill areas are the same as LET II.

# JROTC IV

PREREOUISITE: JROTC III Course Note: Teacher recommendation

The fourth level of study focus on cadets who are assigned to the battalion staff. They help organize, coordinate and plan activities for the entire high school JROTC Program. Students perform logistics, administrative services, training events and public affairs.

# JROTC V

PREREQUISITE: JROTC IV Course Note: Teacher recommendation

This leadership, education, and training course offers additional leadership/management experiences. These are cadets who exhibit an outstanding attitude and display exemplary personal leadership qualities. Application of the skills attained during Levels I - IV are expanded. Cadets must also be prepared to perform Drill and Ceremony requirements and display a desire to further their education. Special skills are the same as LET II.

# JROTC VI

PREREQUISITE: JROTC V Course Note: Teacher Recommendation

This leadership, education and training course provides for expansion and practical application of skills attained by the cadet in Levels I - V. Senior leadership opportunities are developed. Cadets must also be prepared to perform Drill and Ceremony requirements and display a desire to further their education.

# **Physical Education**

# HEALTH AND PHYSICAL EDUCATION

Course required for high school graduation; recommended for all students entering ninth grade.

This course will focus on stress management, nutrition/weight management, substance abuse, personal fitness, healthful lifestyles, social wellness, appreciation for diversity, and social wellness.

#### SPORTS MEDICINE 1

PREREQUISITE: Health and Physical Education

This class is designed to introduce students to the Athletic Trainer's role in the athletic world. Emphasis is on prevention and care of common sports injuries, the history of and how to become an athletic trainer, and the types of jobs that are available to athletic trainers.

# SPORTS MEDICINE II

PREREQUISITE: Basic Sports Medicine

A continuation of Basic Techniques of Athletic Training, this course is designed to prepare students for a possible career in athletic training. Emphasis is placed on specific athletic injuries and the assessment and rehabilitation.

# **BOYS STRENGTH AND CONDITIONING (FALL)**

This course has been designed to help students improve the overall performance of their body and its natural abilities. This increased performance level will be achieved through various means. Each athlete will be trained in various types of lifts, training for both power and strength, as well as participate in speed development drills, plyometrics, and body weight calisthenics.

# **BOYS STRENGTH AND CONDITIONING (SPRING)**

This course has been designed to help students to improve the overall performance of their body and its natural abilities. This increased performance level will be achieved through various means. Each athlete will be trained in various types of lifts, training for both power and strength, as well as participate in speed development drills, plyometrics, and body weight calisthenics.

# GIRLS STRENGTH AND CONDITIONING (FALL)

This course has been designed to help students improve the overall performance of their body and its natural abilities. This increased performance level will be achieved through various means. Each athlete will be trained in various types of lifts, training for both power and strength, as well as participate in speed development drills, plyometrics, and body weight calisthenics.

# GIRLS STRENGTH AND CONDITIONING (SPRING)

This course has been designed to help students improve the overall performance of their body and its natural abilities. This increased performance level will be achieved through various means. Each athlete will be trained in various types of lifts, training for both power and strength, as well as participate in speed development drills, plyometric, and body weight calisthenics.

# PHYSICAL EDUCATION I: LIFETIME FITNESS AND CONDITIONING

This course is designed to give students the opportunity to learn fitness concepts and conditioning techniques used for obtaining optimal physical fitness. Students will learn the basic fundamentals of strength training, aerobic fitness and overall fitness training and conditioning. Students will be empowered to make wise choices, meet challenges, and develop positive behaviors in fitness, wellness, and movement activity for a lifetime.

# PHYSICAL EDUCATION II: TEAM SPORTS AND CONDITIONING

This course provides students with opportunities to acquire knowledge of strategies of team sports play, develop skills in selected team sports, and improve their personal fitness. The content includes knowledge and application of skills, techniques, rules, and safety practices necessary to participate in team sports.

# FOUNDATIONS OF OFFICIATING

This course is offered to seniors only. PHYSICAL EDUCATION TEACHER RECOMMENDATION REQUIRED. This course concentrates on the aspects of officiating which include: characteristics of good official, psychological components, benefits of officiating, methods, techniques and levels of officiating. Students will have officiating opportunities through intramural athletic events, varsity practices and scrimmages, parks and recreation leagues, and youth sports within the community.

# **TEACHER CADET**

# **TEACHER CADET**

Course available to juniors and seniors only. Application Process Required

The NC Teacher Cadet Curriculum is designed to introduce the beginning student to the field of education. We see the teacher as a facilitator rather than a fountain of knowledge. The teacher will introduce, probe, and search the questions as well as the solutions. Learners are no longer viewed as receptacles to be filled with information. They are active participants in the learning process, capable of constructing their own knowledge and having legitimate feelings that incite care and respect.

The course offers a balance between providing information and promoting opportunities for discovery by the Cadets. The use of technology, opportunities to solve problems, and student interactivity should make the curriculum appealing to students and teachers.

# **FINE ARTS**

Arts Education includes four separate and distinct disciplines: dance, music, theatre arts, and visual arts - each with its own body of knowledge and skills. Arts education benefits both student and society, because students of the arts disciplines gain powerful tools for:

- understanding human experiences, both past and present;
- teamwork and collaboration;
- making decisions creatively and solving problems, when no prescribed answers exist;
- adapting to and respecting others' diverse ways of thinking, working, and expressing themselves;
- understanding the influence of the arts and their power to create and reflect cultures;
- analyzing nonverbal communication, and making informed judgments about products and issues; and, communicating effectively.

The arts are core subjects in the Federal Elementary and Secondary Education Act, and the NC Basic Education Program, and, as such, are included as core subjects every student should learn as part of a balanced curriculum for all children in North Carolina. While not all students will become professional dancers, musicians, actors, or visual artists, all students will benefit from skills and processes that are developed through the arts and that can be applied in a variety of disciplines and settings.

# NINTH GRADE BAND

This course is the initial course in band at the high school level.

# **MARCHING BAND (Fall)**

PREREQUISITE: 8th or 9th grade band

Marching Band is open to all band students by informal audition or invitation in the winter and spring of the previous academic year. Performances are required, but are not limited to football games, parades, competitions, and festivals. Current enrollment in Ninth Grade, Concert, or Symphonic Band is required. MARCHING BAND IS OFFERED AFTER SCHOOL ONLY.

# **CONCERT BAND**

**PREREQUISITE**: Beginning Band

This course continues the band experience. Students will continue to study music and grow as musicians.

# SYMPHONIC BAND

Director approval only

This course continues the band experience and is geared for the advanced music students to achieve the highest level of musical performance and musicianship.

# **VOCAL MUSIC BEGINNING**

This is the entry-level choir at Scotland High School. This performance group emphasizes fundamental musical skills and professional choral demeanor during class and in public performance. Students will develop a basic understanding of choral singing, tone proper diction, traditional music styles, performance practices and skills, as well as a basic knowledge of history and theory. Students will study a variety of traditional choral literature. This class is open to any student taking chorus at the high school level for the first time. Public performances are required.

# **VOCAL MUSIC INTERMEDIATE**

This is an intermediate level choir at Scotland High School, and continues to build upon musical skills and professional choral demeanor. This group combines singing with movement. Emphasis is given in a wide variety of musical styles that include foreign languages as well as choreography/acting for the musical stage. Students will receive instruction in history, notation, composition, conducting, and solo performance. Students wishing to be a part of this choral group will need to have at least one semester of Vocal Music I, and an instructor-approved audition. Public performances are required.

# VOCAL MUSIC PROFICIENT

This is an upper-level choir at Scotland High School. While continuing to build upon musical skills and professional choral demeanor, this group combines singing with movement. Emphasis is given in a wide variety of musical styles that include foreign languages as well as choreography/acting for the musical stage. Students will receive instruction in history, notation, composition, conducting, and solo performance. Students will be given the opportunity to participate in off-campus performances and competitive events. Students wishing to be a part of this choral group will need to have at least one semester of Vocal Music Intermediate, along with the recommendation of the director or an instructor-approved audition. Public performances are required.

# VOCAL MUSIC ADVANCED

The advanced choral group at Scotland High School has the highest musical and vocal demands that are placed upon a group of students. Students enrolling in this class will continue to build upon their knowledge and application of good choral tone, proper diction, traditional choral musical styles, performances practices and skills, music theory and history. Students will continue to bolster their abilities in sight singing, notation, composition, conducting, and solo performance. Special emphasis will be given to musical styles of other cultures throughout the world. Students will be given the opportunity to participate in off-campus performances and competitive events. Students wishing to sing with the Advanced Choir must audition and have had at least two semesters of Vocal Music to qualify. Auditions for the Advanced Choir are held throughout the year with the choral instructor. Students accepted into the Advanced Choir are encouraged to register for two semesters of Vocal Music due to the preparation for contest in the Spring semester. Public performances are required.

# THEATRE ARTS BEGINNING

Beginning Theatre is offered to students who have had no drama training and who want to learn theatrical skills. Students will study the basics of acting, improvisation, voice and diction. They also survey basics of costumes, makeup, props, sets, lighting and sound. COURSE NOTE: REQUIRED REHEARSALS AND PERFORMANCES WILL BE HELD OUTSIDE OF THE REGULAR SCHOOL DAY.

# THEATRE ARTS INTERMEDIATE

Students will continue the study of theater with greater emphasis, on the historical evolution and cultural contributions of Theatre, production styles, and performance. Students study basic components of production and apply them through performance. COURSE NOTE: REQUIRED REHEARSALS AND PERFORMANCES WILL BE HELD OUTSIDE OF THE REGULAR SCHOOL DAY.

# THEATRE ARTS PROFICIENT

This course is for students interested in acting. Students will practice using the voice, body, and mind to create characters in improvisations and scripted plays. Basic principles of production are studied and applied through performances in various theatrical applications. COURSE NOTE: REQUIRED REHEARSALS AND PERFORMANCES WILL BE HELD OUTSIDE OF THE REGULAR SCHOOL DAY.

#### THEATRE ARTS ADVANCED

Recommended PREREQUISITE(s): Proficient theatre

Students will do advanced work in acting, directing, and set design, and will continue the study of theatre with greater emphasis on the historical evolution and cultural contributions of theatre, production styles, and performance. Students study basic components of production, and apply them through performance. COURSE NOTE: REQUIRED REHEARSALS AND PERFORMANCES WILL BE HELD OUTSIDE OF THE REGULAR SCHOOL DAY.

# VISUAL ARTS BEGINNING

This course is designed to give students a basic understanding and appreciation of art. Beginning Art is planned to meet the needs for beginning art. The course emphasizes skills development of the creative thought process. A variety of materials will be used.

# VISUAL ARTS INTERMEDIATE

This studio course is planned so that students will learn additional techniques and creative thought processes as well as new applications for the skills and concepts learned in Beginning Art. The content of Intermediate Art will focus on the understanding and the use of various aspects of two and three-dimensional art and art history, and may include drawing, painting, sculpture, collage, printmaking and pottery.

# VISUAL ARTS PROFICIENT

PREREQUISITE: Intermediate Art

This studio course is an advanced level art. Students will take what they have learned in Beginning and Intermediate and begin to perfect their techniques and applications. Students will develop their own style and choices in this less teacher-directed situation.

# VISUAL ARTS ADVANCED

PREREQUISITE: Intermediate Art and Proficient Art

This course is designed for the serious art student who wishes to pursue a varied course of study in advanced art techniques while creating a portfolio. Students will develop an individual plan of study; produce visual artwork; analyze, interpret and evaluate works of art. There will be a major emphasis on the development of a portfolio, which will deal with well-developed themes.

# **APART STUDIO**

PREREQUISITE: Intermediate Art and Proficient Art

This course is designed for the serious art student who wishes to pursue a varied course of study in advanced art techniques while creating a portfolio. Students will develop an individual plan of study; produce visual artwork; analyze, interpret and evaluate works of art. There will be a major emphasis on the development of a portfolio, which will deal with well-developed themes. In this course, there is an emphasis on critical-analysis and innovative art-making processes and products. This course does require active art demands on students. Students have the opportunity to earn college credit upon successful completion of their portfolio.

# OCCUPATIONAL COURSE OF STUDY

# PREPARATION I, II, III, IV

This course is designed to introduce students to the fundamental attitudes, behaviors, and habits needed to obtain and maintain employment in their career choice and make career advancements. Students participate in school-based learning activities including work ethic development, job-seeking skills, decision-making skills, and self-management. Students are involved in on-campus vocational training activities such as school factories, work-based enterprises, hands-on vocational training in Career – Technical Education courses, and the operation of small businesses. Formal career planning and development of knowledge regarding transition planning begins in this course and continues throughout the strand of Occupational Preparation courses

# ENGLISH I, II, III, IV

This curriculum exposes students to content that is closely aligned with that of English courses content. It focuses on the writing process to develop a product, the development of an understanding of appropriate presentation skills, the use of a variety of strategies to comprehend texts, the identification of examples of appropriate conventions in both written and spoken language, the analysis of cause and effect relationships, the understanding of literary elements, rhetorical techniques, and informational text, and the application of research tools and techniques to selected topics.

# INTRODUCTION TO MATHEMATICS

Course Description: Students will develop math skills in preparation for enrollment in Algebra I. Students will apply mathematical operations with rational numbers to solve problems, apply ratios, proportions and percent to solve problems, understand rational numbers, apply time and measurement skills to solve problems, understand patterns and relationships, and understand data in terms of graphical displays, measures of center and range. This course is for students who have an Individual Education Plan (IEP).

# MATH I

This curriculum is directly aligned with that of the Algebra I course content. See the Math I course description.

# **BIOLOGY**

This curriculum is directly aligned with that of the Biology course content. See Biology course description.

# AMERICAN HISTORY I

This course is designed to provide the student with the basic economic, government, and political knowledge they need to become responsible citizens and consumers. It covers the historical background of the development of the United States, including the Constitution and amendments, and the three branches of government, and major laws that affect citizens. The course also covers state and local government roles and jurisdictions, and issues of personal citizenship.

# **CIVICS & ECONOMICS**

This course is designed to teach the students concepts and skills related to self-advocacy and self-determination which are essential for achieving independence and successful adult outcomes. The course strands are presented in natural progression as follows: self concept, communication and assertiveness, problem solving, and self-advocacy

# **Career and Technical Education**

Career and Technical Education fulfills an increasingly significant role in school reform efforts. Students who concentrate in a CTE area, earning at least four related technical credits and meeting other criteria, are better prepared for the further education and advanced training required to be successful in 21st century careers. Career and Technical Educators at the state and local levels partner with business and industry and with community colleges and other postsecondary institutions to ensure Career and Technical Education serves the needs of individual students and of the state.

Every Career and Technical Education (CTE) course falls into one of these career clusters. A career cluster is a group of jobs and industries that are related by skills or products. Within each cluster, there are cluster "pathways" that correspond to a collection of courses and training opportunities to prepare you for a given career.

# **AGRICULTURE**

# AGRISCIENCE APPLICATIONS

This course focuses on integrating biological/physical sciences with technology as related to the environment, natural resources, food production, science, and agribusiness. Topics of instruction include agricultural awareness and literacy, employability skills and introduction to all aspects of the total agricultural industry. English language arts, mathematics, and science are reinforced.

# ANIMAL SCIENCE I

This course focuses on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition, and care in preparation for an animal science career major. Topics include animal diseases, introduction to animal science, animal nutrition, animal science issues, career opportunities, and animal evaluation. English language arts, mathematics, and science are reinforced.

# ANIMAL SCIENCE II

This course includes more advanced scientific principles and communication skills and includes animal waste management, animal science economics, decision making, and global concerns in the industry, genetics, and breeding. English language arts, mathematics, and science are reinforced in this class.

# SUSTAINABLE AGRICULTURE PRODUCTION I

This course focuses on the increasingly complex world of producing enough food and fiber to meet the growing world demand and at the same time maintain ecological balance and conserve our natural resources. Students will explore implementing environmentally sound practices in agricultural production to satisfy the needs of a growing population for today and tomorrow. A breadth of topics including: crop and animal production, natural resource management, agroforestry, food safety, and the farm to fork continuum will set the educational stage for this course. English language arts, mathematics, and science are reinforced.

# SUSTAINABLE AGRICULTURE PRODUCTION II

This course expands on the complexity of producing enough food and fiber to meet the world demand and at the same time maintain an economical balance and conserve our natural resources. Students will explore the U.S. food system and how agriculture impacts the quality of life at all levels as well as the energy resources necessary to meet these needs. Twenty first century topics such as precision agriculture, biotechnology, bioinformatics, plant and animal breeding, apiculture, aquaponics, hydroponics, vermicomposting and food safety will be explored as to their role in a sustainable society. Students will discuss marketing strategies for agricultural products and develop a business plan for a sustainable grower. English language arts, mathematics, and science are reinforced.

# VETERINARY ASSISTANT I

This course provides instruction for students desiring a career in animal medicine. Topics include proper veterinary practice management and client relations, pharmacy and laboratory procedure, advanced animal care, and surgical/radiological procedures. Applied mathematics, science and writing are integrated throughout the curriculum.

# **BUSINESS, FINANCE, AND MARKETING**

# **ACCOUNTING I**

This course is designed to help students understand the basic principles of the accounting cycle. Emphasis is placed on the analysis and recording of business transactions, preparation, and interpretation of financial statements, accounting systems, banking and payroll activities, basic types of business ownership, and an accounting career orientation. Mathematics is reinforced and entrepreneurial experiences are encouraged.

# **ACCOUNTING II**

This course is designed to provide students with an opportunity to develop in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial decisions. Emphasis includes departmental accounting, corporate accounting, cost accounting, and inventory control systems, managerial accounting and budgeting, and further enhancement of accounting skills. Mathematics is reinforced and entrepreneurial experiences are encouraged.

# **ENTREPRENEURSHIP I**

In this course, students evaluate the concepts of going into business for themselves and working for or operating a small business. Emphasis is on the exploration of feasible ideas of products/services, research procedures, business financing, marketing strategies, and access to resources for starting a small business. Students develop components of a business plan and evaluate startup requirements. English language arts and social studies are reinforced.

# ENTREPRENEURSHIP II

In this course, students develop an understanding of pertinent decisions to be made after obtaining financing to open a small business. Students acquire in-depth understanding of business regulations, risks, management, and marketing. Students develop a small-business management handbook. English language arts and social studies are reinforced.

# FINANCIAL PLANNING I

This course is designed to cover key strategies for wealth building as students learn to evaluate businesses for investment opportunities while incorporating current headlines and trends, financial resources, and stock market simulation. Also students will develop techniques to enhance personal wealth building for a secure financial future.

# FINANCIAL PLANNING II

Students will further develop the fundamental knowledge and skills acquired in the prerequisite course to create a business financial plan; including loans, insurance, taxes, corporate governance, and explore the various risks and returns associated with business activities. Emphasis will be placed on analyzing ethical situations in various aspects of finance in local, national and global business environments.

# **MARKETING**

This course is designed to introduce students to the dynamic processes and activities in marketing. The experience includes students developing an understanding and skills in the areas of distribution, marketing-information management, market planning, pricing, product/service management, promotion, and selling. Also students develop an understanding of marketing functions applications and impact on business operations. English language arts, mathematics, and social studies are reinforced.

# MARKETING APPLICATIONS

In this course, students will apply an understanding of marketing functions and impact of the functions on business decisions. Through problem solving and critical thinking, students will apply knowledge and skills in the areas of customer relations, economics, financial analysis, channel management, marketing-information management, marketing planning, products and services management, and selling. Relative opportunities are available for students to use technology to acquire and use marketing information. English, language arts, and social studies are reinforced.

# **SALES I**

This course teaches students the basic knowledge around the sales profession. Students will explore careers in selling, personal branding, communication skills, customer service, buying behavior, technology, product knowledge, and the selling process. Project-based learning, English language arts, and social studies are reinforced

# **SALES II**

This course teaches students the art of selling and will build on the content from the Sales I course. Students will further develop their personal brand and will continue to work on communication and customer service skills in addition to learning about pre- and post-sales activities. Students will use role plays to engage in the selling process and will learn to think on their feet. Project-based learning, English language arts, mathematics, and social studies are reinforced.

# PRINCIPLES OF BUSINESS AND FINANCE

This course introduces students to topics related to business, finance, management, and marketing to cover business in the global economy, functions of business organization and management, marketing basics, and significance of business financial and risk management. English language arts, social studies, and mathematics are reinforced.

# SPORTS AND ENTERTAINMENT MARKETING I

In this course, students are introduced to the industry of sports, entertainment, and event marketing. Students acquire transferable knowledge and skills among related industries for planning sports, entertainment, and event marketing. Topics included are branding, licensing, and naming rights, business foundations, concessions and on-site merchandising, economic foundations, human relations, and safety and security. Mathematics and social studies are reinforced.

# SPORTS AND ENTERTAINMENT MARKETING II

In this course, students acquire an understanding of selling, promotion, and market planning of sports, entertainment, and event marketing. Emphasis is on business management, career development, client relations, contracts, ethics, event management, facilities management, legal issues, and sponsorships. English/language arts, mathematics and Social studies are reinforced.

# COMPUTER SCIENCE and INFORMATION TECHNOLOGY

# COMPUTER SCIENCE PRINCIPLES I

Computer Science Principles I is an introductory course intended to familiarize students with the general concepts and thinking practices of computing, computer science, and information science. Students will learn computing concepts through authentic visual and interactive projects using visual programming languages. Students will focus on the "big CS ideas" in creative ways that emphasize conceptual knowledge and thinking practices rather than on programming alone. The big ideas in CSP include computing as a creative activity, abstraction, facilitating knowledge creation through computing, algorithms, problem-solving, the Internet, and the global impact of computing. Emphasis is placed on problem-solving, communication, creativity, and exploring the impacts of computing on how we think, communicate, work, and play. Art, English language arts, and mathematical concepts are reinforced.

# **COMPUTER SCIENCE PRINCIPLES II**

This is a second level introductory course in computer science (based on The Beauty and Joy of Computing) builds on the foundation of Computer Science Principles I. This course offers a more in depth examination of the "big CS ideas" including a broad range of foundational topics such as programming, algorithms, the internet, big data, digital privacy and security, and the societal impacts of computing. Emphasis is placed on problem-solving, communication, creativity, and exploring the impacts of computing on how we think, communicate, work, and play. Students will extend their programming skills to include more complex constructs including objects and data abstraction. As an option, performance tasks may be included to obtain AP credit.

# FAMILY AND CONSUMER SCIENCES

# CULINARY ARTS & HOSPITALITY I

This course is designed to introduce students to the hospitality and food service industry by learning about components of professional practice and building basic knowledge and skills in food preparation, garde manger, baking, and food service operations. The introduction includes students learning food safety, breakfast cookery, salads and sandwiches, quick breads and cookies, and dining room service. Art, English language arts, mathematics, science, and social studies are reinforced.

# CULINARY ARTS & HOSPITALITY II INTERNSHIP

This course is designed for students to demonstrate their knowledge and skills in basic food preparation, garde manger, baking and food service operations through mentored work experiences in the food service industry. The experience includes students preparing and selling breakfast items, salads and sandwiches, and quick breads and cookies while applying safety, sanitation, and guest service skills. Arts, English and language arts, mathematics, science, and social studies are reinforced.

# **CULINARY ARTS & HOSPITALITY III**

The course is designed for students to further develop their knowledge and skills through learning about advanced food preparation, garde manger, baking and pastry, and food service operations. The experience includes students learning cooking techniques, food preservation, yeast breads and pastries preparation, human relations management, menu planning, and food service purchasing and receiving. Arts, English and language arts, mathematics, science, and social studies are reinforced.

# **HEALTH SCIENCE**

# **HEALTH SCIENCE I**

This course focuses on human anatomy, physiology, human body diseases and disorders, and biomedical therapies. Students will learn about healthcare careers within the context of human body systems. Projects, teamwork, and demonstrations serve as instructional strategies that reinforce the curriculum content. English language arts and science are reinforced in this course.

# HEALTH SCIENCE II

This course is designed to help students expand their understanding of financing and trends of healthcare agencies, fundamentals of wellness, legal and ethical issues, concepts of teamwork, and effective communication. Students will learn health care skills, including current CPR and first aid training for healthcare professionals. English language arts and science are reinforced in this course.

# FOUNDATIONS OF HEALTH SCIENCE

This course is designed to assist potential health care workers in their role and function as health team members. Topics include medical terminology, the history of health care, healthcare agencies, ethics, legal responsibilities, health careers, holistic health, health care trends, cultural awareness, communication, medical math, leadership, and career decision making. English language arts are reinforced.

# PHARMACY TECHNICIAN

This course has self-paced, on-line instruction designed to prepare high school seniors for a pharmacy technician career. Topics included in this course are federal law, medication used in major body systems, calculations, and pharmacy operations. Mathematics is reinforced in this course.

# TRADE, TECHNOLOGY, ENGINEERING, and INDUSTRIAL

# ADOBE VIDEO DESIGN

This course is a project-based video course that develops career and communication skills in video production using Adobe tools. This course is aligned to Adobe Premiere certification. English language arts are reinforced.

# ADOBE VISUAL DESIGN

This course is a project-based course that develops ICT, career, and communication skills in print and graphic design using Adobe tools. This course is aligned to Adobe Photoshop, InDesign, and Illustrator certification. English language arts are reinforced.

# CONSTRUCTION CORE

This course covers the National Center for Construction Education and Research (NCCER) Core certification modules required for all of the NCCER curriculum-area programs, and an additional Green module. The course content includes: basic safety, introduction to construction math, introduction to hand tools, introduction to power tools, introduction to construction drawing blueprints, material handling, basic communication skills, basic employability skills, and "Your Role in the Green Environment". The additional Green module has been added to provide students with instruction in the green environment, green construction practices, and green building rating systems. Also it will help students better understand their personal impacts on the environment and make them more aware of how to reduce their carbon footprint. English Language Arts and Mathematics are reinforced.

# **DRAFTING I**

This course introduces students to the use of simple and complex graphic tools used to communicate and understand ideas, concepts and trends found in the areas of architecture, manufacturing, engineering, science, and mathematics, sketching and computer assisted design (CAD) skills and techniques. English language arts, mathematics, and science are reinforced.

# **DRAFTING II - ARCHITECTURAL**

This course focuses on the principles, concepts of architectural design , and use of Building Information Modeling (BIM), used in the field of architecture. An emphasis is placed on the use of 3D CAD tools in the design and execution of floor plans , foundation plans, wall sections, and elevation drawings. An understanding of 3D CAD concepts and terms , and the use of 3D CAD software such as REVIT , are essential to this course, and the required method of producing finished drawings. English language arts, mathematics, and science are reinforced.

# DRONE TECHNOLOGY I

This course is designed to provide students basic information about the drone industry to gain an understanding of careers and skills in this field. FAA 14 CFR part 107 (The Small UAS Rule), officially known as "Part 107 Remote Pilot Certificate" is covered. The Small UAS rule adds a new part 107 to Title 14 Code of Federal Regulations (14 CFR) to allow for routine civil operation of small Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) and provide safety rules for those operations. This course is also designed for an introduction to basic flight of drones to include manual flight and flight and mapping software. English language arts are reinforced.

# DRONE TECHNOLOGY II

This course is designed to provide students, who have their FAA CFR 14 Part 107 (The Small UAS Rule), officially known as "Part 107 Remote Pilot Certificate", the knowledge and skills needed to be a commercial pilot in the Drone Industry. Entrepreneurship, Fleet management, and Drone software are included in this course. Students will fly a variety of mission types to include Construction, Agriculture, Public Safety, Power and Energy, and Cinematography.

# **ELECTRICAL TRADES I**

This course covers basic electrical trades' terminology and develops technical aspects of electrical trades with emphasis on the development of introductory skills, such as residential wiring, electrical installation, and service. Topics include orientation to the electrical trade, electrical safety, introduction to electrical circuits, electrical theory, introduction to the National Electric Code, device boxes, hand bending techniques, raceways and fittings, and introduction to weatherization. English language arts, mathematics, and science are reinforced.

# **ELECTRICAL TRADES II**

This course builds on skills mastered in Electrical Trades I and provides an emphasis on conductors and cables, construction drawings, residential electric services, electrical test equipment usage, alternating current (A/C) theory, grounding and bonding techniques, motors: theory and application, and electric lighting to structures. English language arts, mathematics, and science are reinforced.

# **EMERGENCY MEDICAL TECHNOLOGY I**

This course is aligned to the EMT Basic certification available from the North Carolina Office of Emergency Medical Services and is part I of a two course sequence required to meet the mandatory hours of training. The course includes skills in each area, using resources from the community to help deliver instruction to the students. English language arts are reinforced. Students must be 17 years of age prior to enrollment per NCOEMS requirements.

# EMERGENCY MEDICAL TECHNOLOGY II

This course is aligned to the EMT Basic certification available from the North Carolina Office of Emergency Medical Services and is part II of a two course sequence required to meet the mandatory hours of training. The course includes skills in each area, using resources from the community to help deliver instruction to the students. English language arts are reinforced.

# FIREFIGHTER TECHNOLOGY I

This course covers part of the NC Firefighter certification modules required for all Firefighters in North Carolina. The modules include: Orientation and Safety Health and Wellness; Fire Behavior; Personal Protective Equipment; Fire Hose, Streams, and Appliances, Portable Extinguishers; Foam Fire Streams; and Emergency Medical CARC. English language arts are reinforced.

# FIREFIGHTER TECHNOLOGY II

This course covers additional NC Firefighter certification modules required for all Firefighters in North Carolina. The modules include: Building Construction; Ropes; Alarms and Communications; Forcible Entry; Ladders; Ventilation; Loss Control. English language arts are reinforced.

# FIREFIGHTER TECHNOLOGY III

This course covers part of the NC Firefighter certification modules required for all Firefighters in North Carolina. The modules include: Water Supplies, Sprinkles, Fire & Life Preparedness, Rescue, Mayday, and Safety & Survival. English language arts are reinforced.

# **PLUMBING I**

This course covers basic plumbing terminology and develops technical aspects of plumbing trades with emphasis on development of introductory skills such as the plumbing profession, plumbing math, pipe fittings and service. Topics include safety, plumbing math, plastic pipe and fittings, drawings, fixture, and water distribution systems.

#### **PLUMBING II**

This course covers the second level of plumbing terminology and develops technical aspects of plumbing trades with emphasis on development of advanced skills such as the plumbing profession, plumbing math, pipe fittings and service. Topics include safety, plumbing math, plastic pipe and fittings, drawings, fixture, and water distribution systems.

# **PUBLIC SAFETY I**

This course provides basic career information in public safety including corrections, emergency and fire management, security and protection, law enforcement, and legal services. FEMA certifications NIMS 100,200, 700, 800 are also a part of this course. Additionally students will develop a personal plan for a career in public safety. The course includes skills in each area, using resources from the community to help deliver instruction to the students. English language arts are reinforced.

# **EMERGENCY MANAGEMENT I**

This course is the first in a series of courses aligned to the Emergency Management certifications from FEMA and are recommended by the North Carolina Emergency Management Office at the NC Department of Public Safety as appropriate for high school students. These certifications are those required by professionals in this field.

# **EMERGENCY MANAGEMENT II**

This course is the second in a series of courses aligned to the Emergency Management certifications from FEMA that are recommended by the North Carolina Emergency Management Office at the NC Department of Public Safety as appropriate for high school students. These certifications are those required by professionals in this field.

# TECHNOLOGICAL DESIGN

This course continues to apply the skills, concepts, and principles of design. The design fields of graphics, industrial design, and architecture receive major emphasis. Engineering content and professional practices are presented through practical application. Working in design teams, students apply technology, science, and mathematics concepts and skills to solve engineering and design problems. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics. Art, English, Language Arts, Mathematics and science are required.

# TECHNOLOGY, ENGINEERING, AND DESIGN

This course focuses on the nature and core concepts of technology, engineering, and design. Through engaging activities and hands-on project-based activities, students are introduced to the following concepts: elements and principles of design, basic engineering, problem solving, and teaming. Students apply research and development skills and produce physical and virtual models. Activities are structured to integrate physical and social sciences, mathematics, English, language arts, and art.

# **CTE INTERNSHIP**

# **CTE INTERNSHIP**

A CTE Internship allows for additional development of career and technical competencies within a general career field. Internships allow students to observe and participate in daily operations, develop direct contact with job personnel, ask questions about particular careers, and perform certain job tasks. This activity is exploratory and allows the student to get hands-on experience in a number of related activities. The teacher, student, and the business community jointly plan the organization, implementation, and evaluation of an internship, regardless of whether it is an unpaid or paid internship.

# **CAREER AND COLLEGE PROMISE**

Career College Promise (CCP): High school juniors and seniors may attend Richmond Community College through the Career and College Promise program if they meet specific guidelines. Career and College Promise provides seamless dual enrollment educational opportunities for eligible North Carolina High School Students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. There are two ways an eligible high school student can enroll: College Transfer Pathways and Career and Technical Education Pathways. Please visit <a href="http://www.nccommunitycolleges.edu/academic-programs/career-college-promise">http://www.nccommunitycolleges.edu/academic-programs/career-college-promise</a> for more information.

- Must be a junior or senior.
- Must have a high school unweighted GPA of 2.8
- Must meet with high school guidance counselor to ensure college classes fit in high school track. Must take a minimum of two courses at SHS each semester.

Career and College Promise courses and descriptions through Richmond Community College are available at <a href="http://richmondcc.edu/course-syllabi">http://richmondcc.edu/course-syllabi</a>. Students must complete a Richmond Community College application, maintain a 3.0 GPA, and complete a placement test (PLAN, PSAT, ACT, SAT, or ACCUPLACER) if applicable.

# **Career & College Promise Courses**

Select on the name of the course to view description and PREREQUISITE requirements

CCP Course Name	College Credit	School Credit	Notes
ART 111 ART APPRECIATION	3	1	
ACC120-PRINCIPLES OF FINANCIAL ACCOUNTING	4	1	
BIO 111 General Biology I	4	1	1 credit; may be combined with BIO 112 to satisfy the Biology graduation requirement, Must pass both courses and complete the EOC to meet HS graduation requirement.
BIO 112 – General Biology II	4	1	1 credit; may be combined with BIO 111 to satisfy the Biology graduation requirement, Must pass both courses and complete the EOC to meet HS graduation requirement.
BUS110 INTRO TO BUSINESS	3	1	
CIS110 INTRODUCTION TO COMPUTERS	3	1	
CIS 115 INTRODUCTION TO PROGRAMMING AND LOGIC	3	1	
CJC111 - INTRODUCTION TO CRIMINAL JUSTICE	3	1	
CJC112 - CRIMINOLOGY	3	1	
COM231-PUBLIC SPEAKING	3	1	
DFT151-CAD I	3	1	
DFT 152-CAD II	3	1	
DFT 153 CAD III	3	1	
ECO251-PRINCIPLES OF MICROECONOMICS	3	1	
ECO 252 PRINCIPLES OF MACROECONOMICS	3	1	

CCP Course Name	College Credit	School Credit	Notes
EDU 119 - INTRO TO EARLY CHILDHOOD	4	1	
ELC112-DCAC ELECTRICITY	5	2	
ENG 111 - EXPOSITORY WRITING	3	1	All 3 Courses together counts as a HS English III
ENG 112 ARGUMENT- BASED RESEARCH	3	1	
ENG 231 AMERICAN LITERATURE	3	1	
HIS131- AMERICAN HISTORY I	3	1	Counts as a HS American History I
HIS132- AMERICAN HISTORY II	3	1	Counts as a HS American History II
MAC111A- MACHINING TECHNOLOGY I	3	1	
MAC111B- MACHINING TECHNOLOGY I	3	1	
MAC122-CNC TURNING	3	1	
MAT143- QUANTATIVE LITERACY	3	1	Counts as a HS 4th Math
MAT 171 PRECALCULUS ALGEBRA	4	1	Counts as a HS 4th Math
MAT 172 PRECALCULUS TRIG	4	1	Counts as a HS 4th Math
MED 121 MEDICAL TERMINOLOGY I	3	1	
MED 122 MEDICAL TERMINOLOGY II	3	1	
NAS101 - NURSING ASSISTANT I	6	2	
NAS102 - NURSING ASSISTANT II	6	2	

CCP Course Name	College Credit	School Credit	Notes
NET 125 NETWORKING BASICS	3	1	
NOS 110 OPERATING SYSTEMS	3	1	
PHI 240 INTRO TO ETHICS	3	1	
PSY 150 - GENERAL PSYCHOLOGY	3	1	
SOC210 - INTRO TO SOCIOLOGY	3	1	
WLD115A-SMAW Stick Plate	3	1	
WLD115B-SMAW Stick Plate	3	1	
WLD121- GMAW	4	1	
WLD131- GTAW	4	1	
WLD141 - SYMBOLS AND SPECIFICATIONS	3	1	
Indicates a CTE/CO	CP Course		

# SCOTLAND COUNTY SCHOOLS ARTICULATED COURSE LIST

# **Process to Document and Award Credit**

To receive articulated credit, students must enroll at the community college within **two** years of their high school graduation date and meet the following criteria:

Final grade of **B** or higher in the course, and;

A score of **93**, or higher, on the standardized CTE Post-assessment.

High School Program Area	High School Course Number / Title	Community College Course Number/ Title
Business and Information Technology Education	6417 Microsoft Word, Power Point, and Publisher OR	CIS-111 Basic PC Literacy OR CIS-124 DTP Graphics Software OR OST-136 Word Processing
Business and Information Technology Education	8726 Personal Finance	BUS-125 Personal Finance
Health Occupations Education	7240 Health Science I 7242 Health Science II	MED-121 Medical Terminology I MED-122 Medical Terminology II HSC-110 Orientation to Health Careers
Marketing Education	8716 Entrepreneurship I 6621 Marketing	ETR-210 Intro to Entrepreneurship Marketing Education ETR-230 Entrepreneur Marketing OR MKT-110 Principles of Fashion MKT-120 Principles of
Trade and Industrial Education	7741 Electrical Trades I AND 7742 Electrical Trades II	Marketing  ELC-113 Basic Wiring I

In some cases students must show proficiency in multiple courses in order to receive articulated credit. In some cases, there are options. Be sure to pay attention to the *AND* and *OR* statements

# **CAREER & COLLEGE PROMISE COURSES**

Career and College Promise (CCP): High school juniors and seniors may attend Richmond Community College through the Career and College Promise program if they meet specific guidelines. Career and College Promise provides seamless dual enrollment educational opportunities for eligible North Carolina High School Students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. There are **two ways** an eligible high school student can enroll: College Transfer Pathways and Career and Technical Education Pathways.

# **ART 111 – Art Appreciation**

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various forms including but not limited to sculpture, painting and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods and media. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirements in humanities/fine arts.

# **BIO 111 – General Biology**

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

# **BUS 110 – Introduction to Business**

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

# CIS 110 – Introduction to Computers

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics (quantitative option).

#### CJC 111 – Introduction to Criminal Justice

This course introduces the components and processes of the criminal justice system. Topics include: history, structure, functions, and philosophy of the criminal justice system and their relationships to life in our society. Upon completion of this course, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

#### **COM 231 – Public Speaking**

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support.

# **ECO 252 - Principles of Macroeconomics**

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.

# **EDU 119 - Intro to Early Childhood Education**

This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for all children.

# **EDU 173 - Becoming a Professional in ECE**

This course is an introduction to the early childhood profession. Emphasis is placed on the NAEYC Ethical Code, professional growth through involvement in professional organizations, and development of a professional portfolio. Upon completion, students should be able to identify professional resources and community partners in order to involve oneself in the early childhood field.

#### **ECO 251 – Principles of Microeconomics**

This course introduces economic analysis of individual, business and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.

# **ENG 111 – Writing and Inquiry**

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. In order to pass this course, a student must earn at least a "C" average on required oral presentations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

# **ENG 112 – Writing/Research in the Disciplines**

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. In order to pass this course, a student must earn at least a "C" average on required oral presentations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

# HIS 131- American History I

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.

# HIS 132 - American History II

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.

# MAC 111 - Machining Technology I

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

# MAC 112 – Machining Technology II

This course provides additional instruction and practice in the use of precision measuring tools lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

#### MAT 143 – Quantitative Literacy

This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts that will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in Mathematics (Quantitative).

#### MAT – 171 – Precalculus Algebra

This is the first of two courses designed to emphasize topics that are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. This course has been approved for transfer under the Comprehensive Articulation Agreement as a general education course in Mathematics.

#### **MAT 172 Precalculus Trigonometry**

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, and vectors. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.

#### NAS 101 – Nursing Assistant I

This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a health care setting. Topics include communications, safety, patient's rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant I with the North Carolina Nurse Aide Registry. This is a certificate level course.

# PSY 150 – General Psychology

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has been approved for transfer under the CAA as a general education course in Social/Behavioral Sciences.

# **SOC 210 – Introduction to Sociology**

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. A special emphasis will be given to global trends and selected world societies. This course has been approved to satisfy the Comprehensive Articulation Agreement general education requirement in social/behavioral sciences.

#### WLD 115 - SMAW (Stick) Plate

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

# WLD 121 - GMAW (MIG) FCAW/Plate

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

# WLD 131 - GTAW (TIG) Plate

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

# WLD 141 - Symbols & Specifications

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

# AHR-110 - Intro to Refrigeration

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

# **AHR-111 - HVACR Electricity**

This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

# **AHR-113 - Comfort Cooling**

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.