

North Shelby



Course Guide

Revised 2014 ac

Graduation Requirements

<p>English/Language Arts – 4 credits</p> <p>Language Arts I Language Arts II Language Arts III Language Arts IV Comp I and II</p>	<p>Mathematics – 3 credits</p> <p>Pre-Algebra Algebra I Algebra II Geometry College Algebra/Statistics</p>
<p>Science – 3 credits</p> <p>Physical Science Biology Chemistry Advanced Chemistry Advanced Biology Physics Anatomy/Physiology Ecology</p>	<p>Social Studies – 3 credits</p> <p>American History World History American Government Contemporary Issues Law and You</p>
<p>Fine Arts – 1 credits</p> <p>Band Chorus Art I Art II Art III</p>	<p>Practical Arts – 1 credits</p> <p>Any Ag class Any Business class Any FACS class</p>
<p>Physical Education –1 credit</p>	<p>Health Education - .5 credit</p>
<p>Personal Finance - .5 credit</p>	<p>Electives – 11 units of credit</p>

*Courses in bold are required for graduation.

North Shelby Course Descriptions

Agriculture

Art

Business

Family and Consumer Science

Foreign Language

Health

Language Arts

Math

Music

Physical Education

Science

Social Studies

Other Options

A+ Tutor

Dual Credit

Work Release

Macon Career and Technical Center Programs

Agriculture

Agricultural Science I

Students interested in careers in agriculture or wanting to develop leadership skills will find this course challenging and beneficial. Better informed students make better decisions; this course will provide students the opportunity to expand their understanding of the role of agriculture in our society. This course is designed for instruction in FFA history, record keeping, career exploration, leadership & personal development, animal science & supervised agricultural experience. A successful agricultural education program relies on all three parts which are classroom/laboratory, FFA, and SAE. FFA is an intracurricular component of Agriculture classes.

Grade: 9

Unit of Credit: 1

Agricultural Science I - LAB

Units in this freshman level class include shop safety, introduction to arc welding, oxy-acetylene cutting, mig welding, woodworking, and career skills. Always be prepared to work hard and get your hands dirty! FFA is an intracurricular component of Agriculture classes.

Grade: 9

Unit of Credit: 1

Prerequisite: Must be currently enrolled in Agricultural Science I

Agricultural Science II

Units in this sophomore class include introduction to plant science, field crops, forages, small grains, and soils. Advanced units are in leadership, career preparation, SAE, records & shop skills. FFA is an intracurricular component of Agriculture classes.

Grade: 10

Unit of Credit: 1

Prerequisite: Ag I

Greenhouse Operation and Management

This course is designed for instruction in the operation and management of a greenhouse and greenhouse plants. Areas of plant propagation, reproduction, and production concerns, as well as others will be explored. Through this class we will utilize the greenhouse as well as other areas for laboratory activities. Always be prepared to work hard and get your hands dirty!

Involvement with FFA organization and continuation of an SAE program are integral parts of this course.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Ag I & Ag II

Agricultural Power

Small engines provide development of mechanical skills and principles needed to pursue a career in agricultural mechanics. Also, advanced principles and operations of transmissions, hydraulic systems, and tractor engines provide entry-level skills in agricultural mechanics. This course develops skills in the maintenance, repair, adjustment, and overhaul of small engines. More advanced students will study the basic principles of power transmissions, hydraulic systems, and tractor engines. Tractor operation, safety practices, and maintenance will receive major emphasis. Involvement with FFA organization and continuation of a SAE program are integral parts of this course.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Ag I & Ag II

Agricultural Structures

Basic construction skills and knowledge in electricity, plumbing, concrete, and masonry are necessary for the building of agricultural structures. This course includes electrical wiring; electrical motors; concrete masonry; plumbing and sewage disposal; farm fences; product handling and processing equipment; and farm buildings. Involvement with FFA organization and continuation of a SAE program are integral parts of this course.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Ag I & Ag II

Agriculture Construction

Advanced skills in welding, woodworking, and project construction provide students with entry-level agricultural construction skills. This course utilizes welding in the development and construction of major metal and wood shop projects. Involvement with FFA organization and continuation of a SAE program are integral parts of this course.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Ag I & Ag II

Advanced Livestock Production

The objective of Advanced Livestock Production is to help students develop a basic understanding and real appreciation for the worth of livestock production and its importance in global, national, and statewide agriculture. Advanced Livestock Production is the in depth study of animal nutrition, genetics and reproduction. This course includes a unit on meat science, the livestock industry and management practices in swine, beef, sheep and equine production as well as other aspects of animal agriculture. This class is offered as a dual credit course through Missouri State University and a rigorous coursework should be expected. Involvement with FFA organization and continuation of a SAE program are integral parts of this course.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Ag I & Ag II

Agriculture Business (Sales and Marketing)

Agribusiness Management is a course designed to explore the different aspects of agribusiness and what is needed to work in the industry. This course will include units in industry, economics, financial management, personal development, communication, sales, and marketing as well as others. The class will also utilize real-world applications to facilitate the understanding of Agribusiness principals. This class is offered as a dual credit course through Missouri State University and a rigorous coursework should be expected. Involvement with FFA organization and continuation of a SAE program are integral parts of this course

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Ag I & Ag II

Food Science

This course is designed to introduce students to the basic fundamentals of food science and underlying technology associated with providing a safe, nutritious, and abundant supply of fresh and processed foods to humans. Students are introduced to the nature and scope of the world food problem as well as the solutions that have been proposed. This is followed by an introduction to looking at foods and food systems in scientific terms and how understanding basic scientific principles explains how and why we process, prepare, and store foods for human consumption. Involvement with FFA organization and continuation of a SAE program are integral parts of this course

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Ag I & Ag II

Art

Art I

This course is an in depth introduction to the art elements. A variety of media is used allowing students opportunities for self-expression and communication of their own ideas. This is a text-driven course that includes written and visual recognition tests. Along with studio work, art history is an important part of the course. Student work centers on the specific areas of study.

Grade: 9, 10, 11, 12

Unit of Credit: 1

Art II

This course is an in depth study of the principles of art. A variety of media is used allowing students opportunities for self-expression and communication of their own ideas. This is a text-driven course that includes written and visual recognition tests. Along with studio work, art history is an important part of the course. Student work centers on the specific areas of study.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Beneficial to have completed Art I

Art III

This course provides the student with the opportunity to study several specialized areas in the arts. Sculpture, printmaking, and drawing are some of the areas students may gain more experience in. Art history is an important part of the course and note taking, quizzes, and self-critiques are utilized. There is no specific textbook, but subject matter is drawn from a variety of sources. Students are encouraged to use problem solving and higher level thinking skills in this course.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Highly recommended the student has completed Art I and Art II.

Business

Accounting I

Accounting I is the first course taught in the Accounting sequence. This course will present students with basic accounting concepts. Topics covered are careers in Accounting, debit/credit transactions, journalizing, posting, and preparing work sheets, financial statements for proprietorships and partnerships. Automated accounting skills are learned through automated projects, including two business simulations that are completed on the computer. This course is geared for students who are planning to attend college and major in business or students who want general bookkeeping skills.

Grade: 9, 10, 11, 12

Unit of Credit: 1

Accounting II

Accounting II is the second course taught in the Accounting sequence. Topics covered are departmentalized businesses, voucher control systems, preparing adjustments and financial statements for corporations, and studying managerial accounting procedures. Automated accounting skills are learned through various automated projects, including two business simulations.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Successful completion of Accounting I

Business Management

First semester students will learn the basic introduction into business. Subjects covered will be business organization and management, entrepreneurship and small business leadership, human resources and career development. Then second semester each student will be managing their own business through a simulation titled Mean Jeans. This completely hands-on management of a business gives each student a unique learning experience. Businesses managed vary from a trucking company, video store, newspaper, to a large scaled bank.

Grade: 10, 11, 12

Unit of Credit: 1

Computer Applications

This course stresses technical and communication skills needed to be successful in a business-related career or in a post-secondary school. It provides training in Word, EXCEL, Publisher, PowerPoint and introductory Photoshop techniques. Students will learn to create calendars, flyers, business cards, mail merges, research papers, spreadsheets and professional advanced Power Points.

Grade: 9

Unit of Credit: 1

Required

Computer Applications II

This course provides content for employment in a wide range of occupations. Demand for knowledge of computer applications will continue to expand as businesses utilize advanced computer technologies to increase their production efficiency. This course stresses technical and communication skills needed to be successful in a business-related career or in a post-secondary school. It provides training in hands-on development of creative projects throughout the school, including but not limited to, the school newsletter, activity programs and school forms.

Advanced software techniques are learned using Adobe Photoshop, Microsoft Publisher, Microsoft EXCEL and Adobe InDesign. Equipment used includes cold laminator, Epson poster printer, Risograph copier, electronic stapler and large paper cutter.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Computer Applications I

Desktop Publishing

This area of instruction provides content for employment in career areas, which include desktop publishing skills and web page creation. Demand in this area will continue to expand as businesses utilize advanced desktop publishing skills to increase their production efficiency and improve the creativity and quality of business documents and publications. It provides training in designing the school's yearbook. Students will learn to create pages, work with digital photography, manage student data and work with deadlines.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Computer Applications

Entrepreneurship

Instruction in this area prepares students to understand how to organize and operate a business. All students can benefit from an understanding of and appreciation for entrepreneurship and its role in the enterprise system.

It is designed to introduce the students to what is needed to start a simple business. Students will be able to select a type of ownership, develop a business plan, understand marketing basics, hire and manage a staff and protect and insure a business. They will also develop an understanding of what it means to be an entrepreneur and how they can use their unique skills and talents to start a small business venture.

Grade: 10, 11, 12

Unit of Credit: .5

Business Law

The material in this course provides students with practical guidelines for becoming well informed contributing citizens and consumers; both now and in the future. This course also develops fundamental understandings of how the law governs business and its operations.

It is a theme-related, law-based course focusing on the study of law for business and personal use. This course is designed to introduce topics such as ethics, contracts, sales, court systems, employment, and personal business transactions in business and personal law beginning with the origins of law. This course will offer students the opportunity to strengthen vocabulary skills, research skills, and public speaking skills.

Grade: 10, 11, 12

Unit of Credit: .5

Family and Consumer Science

Career and Family Leadership (CAFL)

This course is an introduction to knowledge and skills needed by students in preparing for their roles as homemakers, consumers, and wage earners. CAFL is designed to give students an introduction into family and consumer sciences educational classes. Topics covered will include personal development, family and child development, consumer issues, food preparation, nutrition, entrepreneurship, housing and environments, and clothing and textiles.

Grade: 9

Unit of Credit: 1

Housing Environments and Design

This course is designed to improve the quality of life and to enable students to make complex, responsible decisions necessary to create desirable living environments. This instructional program prepares individuals to understand the physical, psychological, and social influences pertaining to complex housing decisions required for creating a desirable living environment. It includes instruction in the human and environmental factors influencing the form and use of housing, the varied types of housing: costs, exterior and interior design, home furnishings, and equipment.

Grade: 10, 11, 12

Unit of Credit: 1

Family Living

This course is designed to assist citizens in creating stable families. Students will be able to construct meaning by interpreting the nature, function, and significance of human relationship, communicate effectively, and make decisions that strengthen and maintain family relationships. The instructional program focuses on family as the basic unit of society. Students will learn how to develop strong families and personal relationships by learning about themselves and others. Decision making, handling crises, and communication are just a few important family tools students will learn how to utilize. This class will consist of much discussion, reflection, and application of each student's life in order to strengthen future relationships. Students will also learn how to balance family and work, which is an increasing problem, for families with dual incomes. This class will focus on sensitive issues and will require much writing and personal reflection.

Grade: 10, 11, 12

Unit of Credit: 1

Apparel and Textile Management

The purpose of this course is to improve the quality of life and enable students to manage resources regarding clothing purchases, clothing maintenance, clothing repair, and clothing construction. Students will investigate the psychology behind clothing choices and learn how to choose clothing. Students will learn the elements and principles behind designing clothing and investigate the history of fashion and clothing construction as well as related careers.

Grade: 10, 11, 12

Unit of Credit: 1

Nutrition and Wellness

The purpose of this course is to improve the quality of life and health of students. Nutrition is the focus of this course as students learn to apply health-related information with a focus on nutrition. This course allows students to relate their own health to topics covered in the class. Students will set health related goals. They will also keep a food diary to analyze and create awareness of how nutrition related choices affect their health. Additionally, students will learn cooking methods to increase health and nutrition.

Grade: 10, 11, 12

Unit of Credit: 1

Consumer Resource Management

This course is designed to assist students in becoming successful, contributing members of society. Critical and analytical thinking will be a focus of this course in order to enable students to research and make informed opinions while making the most of human and nonhuman resources available to them. Students will learn skills needed to succeed in life beyond high school. Focus will be placed on managing money, time, and other life-based resources.

Grade: 12

Unit of Credit: 1

General Foods

This course is designed to improve the quality of life and health of students through learning about food preparation. Nutrition is the focus of this course as students learn to apply food preparation techniques to purchasing, planning, preparing, and serving nutritious foods. The instructional program prepares individuals to understand the principles of nutrition; the relationship of nutrition to health and wellness; the selection, preparation, and storage of food; meal management to meet individual and family food needs and lifestyles; food economics and ecology; understanding and promoting nutritional knowledge; and the application of related math and science skills.

Grade: 10, 11, 12
Unit of Credit: 1

Personal Finance

This course introduces students to the management of personal and family resources to achieve personal goals and financial literacy. Content provides opportunities for students to explore consumer behavior, laws and legislation, consumer protection, consumer rights and responsibilities, consumer decision making, advertising and promotional techniques, individual and family money management, banking services, use of credit, income tax, technology, and careers.

Grade: 10
Unit of Credit: .5

Required

Foreign Language

French I

This course is a study of the basic elements of the French language with emphasis on pronunciation, comprehension, speaking, reading, and writing in the target language. This class is designed to help students develop both linguistic proficiency and cultural sensitivity. Students will practice language in part by listening to native French speaking people on CD's. In addition to daily classroom activities, students will take book quizzes and tests, research cultural information, and create various written and oral projects.

Grade: 9, 10, 11, 12

Unit of Credit: 1

French II

This class continues beginning French with more emphasis on syntax, vocabulary building, and audio-oral practice. Students will participate in daily classroom activities, take book quizzes and tests, as well as put together various projects.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: French I

Spanish I

This course is a beginning Spanish course designed to guide students towards functional communicative proficiency while helping them develop general insights into the working of the Spanish language and culture. Emphasis is placed on learning a variety of communication and grammar skills. In addition, a wide range of cultural knowledge regarding the Hispanic area of the world is acquired.

Grade: 9, 10, 11, 12

Unit of Credit: 1

Spanish II

This course is designed to help students build on the basic language structures and cultural insights acquired in Spanish I to further develop linguistic proficiency and cultural sensitivity. Emphasis is placed on language, grammar, and culture to help students broaden communication

skills. At the same time students will have the opportunity to deepen their appreciation of other cultures

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Spanish I

Health

Health

This course will provide the students with a working knowledge of the importance of health as it affects all aspects of life. Students will be given the information and resources needed to improve or maintain their health the remainder of their lives. This instructional program will utilize current and reliable health information where students research and assess current health issues and apply them to improving the quality of their life. Critical and analytical thinking is the basis for this class because of the large amount of health information in society that constantly changes. Students will also apply basic science, math, and history skills.

Grade: 10

Unit of Credit: .5

Required

Language Arts

Language Arts I

This is the first course taught in the high school Communication Arts sequence. This course helps build a foundation for the high school program. This class integrates grammar, writing, vocabulary, and literature study. Throughout the year, literature and writing are used to build a base knowledge about literature and writing concepts. Emphasis is placed on the following topics: 1) analyzing literature; 2) writing formally and informally; 3) reading and evaluating fiction, nonfiction, drama, and poetry; 4) applying skills of the writing process, 5) defining and recognizing literature and writing terms; 6) expanding vocabulary; 7) researching through the use of library materials and modern technology.

Grade: 9

Unit of Credit: 1

Required

Language Arts II

This course continues to build the foundation for the high school Communication Arts program. This class integrates grammar, writing, vocabulary, and literature study. Throughout the year, literature and writing are used to build a base knowledge about literature and writing concepts. Emphasis is placed on the following topics: 1) analyzing literature; 2) writing formally and informally; 3) reading and evaluating fiction, nonfiction, drama, and poetry; 4) applying skills of the writing process; 5) defining and recognizing literature and writing terms; 6) expanding vocabulary; 7) researching through the use of library materials and modern technology.

Grade: 10

Unit of Credit: 1

Prerequisite: Language Arts I

Required

Language Arts III (College Prep)

The emphasis is on essay writing and critical analysis of American Literature. Strong writing skills, along with appropriate study, note-taking, organizational, and test-taking skills are encouraged and practiced to prepare the students for the rigor of college course work. Students will write various informal essays but will focus specifically on formal informational and persuasive/argumentative strategies and writing, all according to the guidelines of MLA format. Research technique, as well as the basic steps of writing a research paper, is introduced. American Literature is studied chronologically from its beginnings to the present, with a careful look at various forms of writing, including poetry, essay, short story, and drama.

Grade: 11

Unit of Credit: 1

Prerequisite: Language Arts I, Language Arts II
Required

Language Arts III – Workplace Readiness (non–college prep)

Today’s workplaces are becoming increasingly complex and technological. This course helps students acquire and refine reading, writing, speaking, and listening skills they will need, not only for successful employment but also in their roles as students, citizens, consumers, and lifelong learners. This course is the third English class chosen by non-college bound juniors, it focuses on the four communication skills: Reading that requires workers to analyze and summarize information; technical writing that can be adapted to various workplace situations; speaking that allows students to become adept at self-expression; and listening that is critical to success on the job.

Grade: 11
Unit of Credit: 1
Prerequisite: Language Arts I, Language Arts II
Required

Language Arts IV - Workplace Readiness (non-college prep)

This course helps students acquire and refine the reading, writing, speaking, and listening skills they will need, not only for successful employment but also in their roles as students, citizens, consumers, and lifelong learners. This course focuses on four workplace communication skills: reading that requires workers to analyze and summarize information; technical writing that can be adapted to various workplace situations; speaking that allows students to become adept at self-expression; and listening that is critical to success on the job.

Grade: 12
Unit of Credit: 1
Prerequisite: Language Arts I, Language Arts II, Language Arts III
Required

Language Arts IV (College Prep)

The course emphasis is on research techniques, a full-length research paper, and critical analysis of British Literature. Strong writing skills, along with appropriate study, note-taking, organizational, and test-taking skills are encouraged and practiced to prepare the students for the rigors of college course work. Using effective research techniques, students complete a full-

length persuasive/argumentative research paper, from choosing a topic through editing the final draft using MLA format. British Literature is studied chronologically from its beginnings in the sixth century England to the present, including the writing of critical analysis of literary selections and the investigation of various writers' influences.

Grade: 12

Unit of Credit: 1

Prerequisite: Language Arts I, Language Arts II, Language Arts III

Required

Drama

Drama is an elective open to students in grades nine through twelve. Students will spend time learning and improving various skills important to acting- basically becoming comfortable performing in front of others. They will also direct and act in a film project from start to finish, including: selecting appropriate content; creating a storyboard; participating in costume, make-up, and prop choice; writing camera directions; editing with transitions and special effects; and publishing, sharing, and presenting final projects with the aide of social media. The class will also participate in the Missouri Arts Council "Poetry Out Loud" contest. Additional projects include presenting a play or plays for various audiences, monologue presentation, set construction, dress and make-up technique, and film review.

Grade: 10, 11, 12

Unit of Credit: 1

Math

Pre-Algebra

Students enrolled in Pre-Algebra will have the advantage of additional time to learn and master algebra concepts before taking Algebra I. This course is for students wanting and/or needing to approach the Math curriculum at a cautious pace. This course develops problem-solving skills giving students the ability to solve problems within mathematics and other areas. Emphasis is placed on the following topics: concept of variable, expression, and equation; number patterns; operations with polynomials; solving linear, quadratic, and systems of equations; inequalities; factoring; and applying algebraic methods to real-life problems.

Grade: 9

Unit of Credit: 1

Algebra I

This course is an entry requirement for most colleges and technical schools. Algebra I develops problem-solving skills giving students the ability to solve problems within mathematics and other areas. Emphasis is placed on the following topics: concept of variable, expression, and equation; number patterns; operations with polynomials; solving linear, quadratic, and systems of equations; inequalities; factoring; and applying algebraic methods to real-life problems.

Grade: 9, 10

Unit of Credit: 1

Required

Algebra II

This course continues the emphasis on problem solving skills from Algebra I. Emphasis is placed on the following: solving equations including quadratic, exponential and logarithmic, rational, and radical, as well as a review of linear equations and inequalities; graphing functions including quadratic, exponential, rational, radical, polynomial, and parent graphs, as well as a review of linear equations and inequalities; and solving systems of linear equations in both 2 and 3 variables. Graphing calculators are also used to explore algebraic functions.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Algebra I

Consumer Math

This course is a possible third course taught at North Shelby in the higher mathematics sequence. Consumer Math offers 1 unit of credit to students in grades 11-12. Emphasis is placed on the following: full and part-time jobs; basic purchases including sales tax and shipping charges; checking and savings accounts; credit cards and loans (auto and home); expenses related to auto and home; federal, state and local income taxes and real estate taxes.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Algebra I

Geometry

Natural and constructed environments provide examples of geometric concepts; therefore, real-world application of geometry is a key part of life. This course will strengthen one's problem-solving and reasoning abilities. Geometry provides the student with the ability to identify, classify, describe and compare figures; visualize and draw figures; understand and apply geometric properties; use models; apply geometrical relationships to real-world situations; and strengthen algebraic skills.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Algebra I

Music

High School Band

Students will participate in pep band, marching band, and concert band performances. A wide variety of music for winds and percussion will be studied and performed throughout the school year. In addition, students will have individual opportunities to participate in optional events including Solo and Small Ensemble Contest; Conference, District and State Honor Band; and various other honor ensembles or performance events. Attending all full band performances is a course requirement as band is a co-curricular class requiring attendance and participation outside the class time.

Grade: 8, 9, 10, 11, 12
Unit of Credit: 1

High School Chorus/Choir

This course explores choral music from a wide variety of cultures and time periods through study and performance. The core curriculum emphasizes the basics of vocal technique, sight reading, music theory, and music history. In addition, students will have individual opportunities to participate in optional events including Solo and Small Ensemble Contest; Conference, District and State Honor Choirs; and various other honor ensembles or performance events. Attending all full choir performances is a course requirement as choir is a co-curricular class requiring attendance and participation outside the class time.

Grade: 9, 10, 11, 12
Unit of Credit: 1

Physical Education

Physical Education

This course provides opportunities for mental, social, emotional, and physical growth for students. Physical education courses prepare students to be physically active and learn the benefits of physical activity. Students acquire knowledge and skills enabling them to develop and maintain healthy lifestyles. In P.E. classes, emphasis is placed primarily on attitude, participation, and sportsmanship rather than pure skill acquisition. Students are required to dress out and participate in various course activities, as well as recall activity rules, regulations, and scorekeeping procedures. The intent is to provide students with a variety of skills and activities from which to choose later in life.

Grade: 10, 11, 12

Unit of Credit: 1

Required

Science

Applied Biology and Chemistry (A-B-C)

Applied Biology and Chemistry is an interdisciplinary course designed to link science with real world and career applications. Its purpose is to give a technology and scientific background to students who have not taken Chemistry I or Biology I. Topics include ecology; natural resources; cell structure and function; and genetics. Scientific problem solving, specifically the gathering of and interpretation of evidence, is emphasized throughout the course.

Grade: 10, 11, 12

Unit of Credit: 1

Biology

This course provides a basic understanding of living things and their interactions with the environment. Students will be given a framework of knowledge to help them understand technological advances and it will foster an appreciation for the natural world. As students gain an understanding of the importance of biology in their daily lives, they will be better able to form connections between science concepts and skills in the world around them. Students study the features that characterize all living things. Emphasis is placed on the following topics; proper use of the scientific methods, instruments, and technology; ecology; biochemical processes necessary to sustain and maintain life; growth and reproduction at the cellular level; genetics; roles of mutation and natural selection as applied to species change over time; and the classification structure currently used in biological sciences.

Grade: 9, 10, 11, 12

Unit of Credit: 1

Required

Ecology

Ecology is the study of relationships living things have with each other and their environment. Students who understand and appreciate these relationships will be able to make rational, informed decisions about environmental issues as adults. This course is hands-on, active learning experiences about concepts and issues of Ecology, including population, resources, and biodiversity. The level of study is both global and includes a significant amount of outdoor experience. Participation in an outdoor service project is also part of the course requirements.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Biology I

Physical Science

This course is designed to give students an introduction to Physics and Chemistry. Students will gain an understanding of the laws of nature which regulate motion and the properties of matter and energy. Problem solving involving both math and science skills is a basic component of this course. Topics emphasized include motion; energy and machines; properties of matter and atomic structure; and interactions of matter during chemical change. Students are involved in active laboratory learning and apply science skills to guide their investigation.

Grade: 9, 10, 11, 12

Unit of Credit: 1

Chemistry

This course provides a foundation of concepts necessary to an understanding of chemical process in everyday life or in the news. Chemistry is the study of structure of matter, its composition and structure, and the changes it undergoes. In this course, students are expected to improve their science and chemical literacy, problem-solving skills, communication skills, and laboratory techniques. Chemistry is considered a prerequisite to more advanced science courses and is recommended as a background course to all college bound students. Chemistry is an experimental science using lab work and analysis as a key in understanding the interactions and structure of matter. Major emphasis is placed on the following units: laboratory safety and procedures; matter, energy, and their interactions; measuring with S.I. system and problem solving skills needed for physical sciences; atomic structure and periodicity; chemical language; and phases of matter and their properties.

Grade: 10, 11, 12

Unit of Credit: 1

Prerequisite: Algebra I and either Physical Science or Biology I

Advanced Biology

This course provides an in depth study of life science topics not generally included in a first year course. This is offered to students with an interest in life science careers and who need an adequate biology background for their career choices. Advanced Biology uses a college text as a reference for in depth studies of the following major topics: biochemical pathways for energy transformations; genetics and biotechnology; microbiology; population dynamics; and ecological relationships.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Biology I and Chemistry I

Dual Credit Option – Bio 101 – 4 credits - MACC

Advanced Chemistry

This course is an in depth study of chemistry topics not generally included in a first year course. Advanced Chemistry is offered for students who will need to take college chemistry or are interested in science related careers and will need an adequate chemistry background for career choices such as engineering and medical or veterinary science. Advanced Chemistry emphasizes laboratory experiments with strong mathematical skills required. Topics covered include: solution processes; acids and bases; thermodynamics; reaction kinetics; chemical equilibrium; oxidation-reduction reactions; and organic chemistry.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Chemistry I

Dual Credit Option – Phys. Science 121 – 5 credits - MACC

Human Anatomy and Physiology

This course is of particular importance to those students interested in medical, health, or veterinary science related career choices, as well as students who are wanting to gain a better understanding of how their body functions. Human Anatomy and Physiology incorporates two life sciences. Anatomy is the study of internal and external structure and the physical relationship between body parts in the human body. Physiology is the study of how living organisms perform the vital functions to maintain life. Students are expected to learn proper terminology associated with body systems, as well as identify the major structures and understand their functions through use of charts, diagrams, experiments, and dissections.

Grade: 11, 12

Unit of Credit: 1

Prerequisite: Biology I and Chemistry I

Physics

Physics is the branch of science concerned with matter, energy, and the relationships between the two. This course is for those students who need a comprehensive background for college and for those interested in either physical or life science related careers. Physics is an advanced science course that requires strong mathematical skills. It is divided into four major topics: mechanics and heat, waves and their properties, electricity and magnetism, and nuclear physics. Mechanics and heat include the study of motion, forces, work, power, and aspects of heat. Waves include the study of sound and light energy. Electricity and magnetism includes electronics as well as ways of generating and transmitting electricity. Nuclear physics concerns energy binding matter.

Grade: 12

Unit of Credit: 1

Prerequisite: Chemistry I and Algebra I

Social Studies

American History

This course is the foundation for other history courses students will take in high school. It covers the period from Reconstruction to the present day, showing how the United States went from a shattered country after the Civil War to the world leader it is today. Areas covered include: 1) Reconstruction; 2) the second Industrial Revolution; 3) the United States expansion overseas; 4) World War I and its aftermath; 5) the Roaring '20s; 6) the Great Depression and recovery; 7) World War II; 8) the Cold War and the 1950s; 9) the Vietnam War and the upheaval of the 1960s; and 10) our changing society from 1970s to present.

Grade: 9

Unit of Credit: 1

Required

World History

World History is a course designed to teach students about the early civilizations and their contributions to our society and government. Students will see how our modern society and government has been shaped by the people who lived thousands of years ago. Emphasis is placed on the following topics: Ancient Greek and Roman Civilizations; the rise of Europe in the Middle Ages; Renaissance and Reformation; the Age of Exploration; the Enlightenment; the French Revolution; and the Industrial Revolution.

Grade: 10

Unit of credit: 1

Required

American Government

Goals of this course are to develop an understanding of how our government works and how an individual is protected by our government and to produce civic-minded individuals for the future. Students need to understand how the Constitution protects civil liberties, directs government, and allows free enterprise to flourish. Emphasis is placed on the following topics: 1) the U.S. Constitution; 2) citizenship and the laws which affect individual citizens; 3) all three branches of government; 4) the local, state, and Supreme Court systems; 5) the Electoral College and the voting process; 6) interest groups and lobbyists; and 7) agencies of the national government.

Grade: 11

Unit of credit: 1

Required

Contemporary Issues

This course is designed to help students become aware of world and local news and to encourage curiosity about World events. Emphasis is placed on the following topics; 1) world news; 2) state news; 3) local news; 4) the local, state, and Supreme Court systems; 5) people; 6) business; and 7) national government news.

Grade: 11, 12
Unit of credit: 1

Law and You

This course is designed to help students understand crime and the criminal justice process used in the United States. Emphasis is placed on the following topics: 1) Crime in American including theories of crime and causation of crime; 2) Policing; 3) Judgement; 4) Corrections; and 5) Special Issues including juveniles, dugs, and criminal justice in other countries.

Grade: 11, 12
Unit of credit: 1

Other Options:

A+ Tutor

Students participating in the A+ Program may arrange to tutor for one block in order to fulfill the 50 hours tutoring requirement. The Guidance Counselor and A+ Coordinator arrange placement with priority given to seniors. Non-gpa credit is given for tutoring.

Work Release

Seniors have the opportunity to participate in a work release program in order to explore a career interest or for economic reasons. No credit will be given for students enrolling in work release. A student may receive work release for a maximum of two blocks. The North Shelby Handbook currently limits the number of work releases awarded per year to five, and they must be approved by the principal.

Dual Credit

Dual Credit courses are offered at North Shelby, over the ITV system, and online. Students may earn college and high school credit for these courses. Courses have requirements that must be met to enroll. Students must earn a C or better in the course to earn college credit. Course name listed on the high school schedule may differ from the college course name in order to differentiate it from our high school courses.

Courses offered through Moberly Area Community College

BIO 101 Biology – 4 hours

HST 105 American History to 1865 – 3 hours

HST 106 American History from 1865 – 3 hours

LAL 101 Composition – 3 hours

LAL 102 Exposition – 3 hours

LAL 121 American Literature – 3 hours

MTH 140 College Algebra – 3 hours

MTH 145 Trigonometry – 3 hours

MTH 160 Elementary Statistics – 3 hours

PHY 121 General Chemistry 1 – 5 hours

PSY 101 General Psychology – 3 hours

SPK 101 Public Speaking – 3 hours

***Dual credit courses listed above are calculated on a weighted grade point average.**

Courses offered through Missouri State University

AGR 108 Advanced Livestock Production I – 1 hour

AGR 108 Ag Management I – 1 hour

Dual Credit Course Descriptions

AGR 108 is a course designed to treat specific areas of agriculture to meet specialized student needs. Treatment of the subject will include consideration of historical, theoretical, scientific, and application aspects. This course can be repeated up to a total of 4 hours provided the same topic is not repeated.

BIO 101 is designed to provide each student with an understanding and appreciation of the diversity of living things and their cell structure, chemistry, genetics, evolution, and ecological relationships.

HST 105 is a survey of the economic, social and diplomatic aspects of the historical development of the United States from 1492 to the Civil War. A study of the federal and Missouri constitutions is included.

HST 106 is a survey of the economic, social, and diplomatic aspects of the United States from 1865 to the present. Special attention is given to the period after 1945.

LAL 101 teaches process writing, from pre-writing to revision. Focus is on reading and critical thinking, essay writing, and literary analysis. Course provides practice in computer-assisted writing and oral communication.

LAL 102 introduces students to research writing through originality, organization, and persuasion. Focus is on critical thinking when conducting research, considering sources, and synthesizing information.

LAL 121 is a study of American literature from the late 19th century to the present, emphasizing reading, interpretation, and criticism of works by major authors

MTH 140 includes a review of basic algebra; various functions and their graphs, including polynomial and rational functions and exponential and logarithmic functions; and an introduction to analytic geometry.

MTH 145 includes angle-based trigonometric functions and their inverses, multiple angle formulas, identities, trigonometric equations, radian measure, arc length, angular velocity, graphs of trigonometric functions, and solution of right triangles.

MTH 160 includes elementary probability and statistical inference, descriptive statistics, testing hypotheses and estimation, t-distribution, chi-square distribution, correlation and significance.

PHY 121 is an introduction to the principles of chemistry: measurement, atomic theory, periodic relations, chemical formulas, chemical equations, and calculations based on chemical equations, atomic and molecular structure, and the gas laws.

PSY 101 is an introduction to the nature and scope of the field of psychology. Focus is on the historic development of the field; biological and developmental processes; consciousness and perceptions; learning, remembering, and thinking; motivation and emotion; personality and individuality; social behavior; stress and coping; and psychopathology and psychotherapy.

SPK 101 studies the role of speaking in communication in both formal and informal situations. The course includes a study of the communication process, the role of the listener, methods of speech organization, informative and persuasive techniques, and effective delivery.

Macon Area Career and Technical Center

North Shelby juniors and seniors have the opportunity to take advantage of courses offered at Macon Area Career and Technical Center. Towards the end of students sophomore year a representative from Macon will give a presentation to students explaining the program and application process. Students must be in good standing with North Shelby and be on track for graduation to apply for the program at Macon. There are an allotted number of slots in each program area, so there is never an automatic admission. These programs at Macon offer students programs of study not offered at North Shelby.

Course Offerings

FAMILY & CONSUMER SCIENCE

Class	Course #	Grade Level	Prerequisites	Credits
Early Childhood Careers I	7130	11,12	Preference to students with Child Development course	3 Credits
Early Childhood Careers II	7131	12	Early Childhood Careers	3 Credits

Early Childhood Careers is designed for students who desire to work in careers involving young children. This course will give students the knowledge and experience necessary to prepare for a wide range of careers, such as childcare, teaching, social work, and pediatrics. Student's time will be divided between classroom theory and working with the preschool children in the on-site preschool lab. Students will be responsible for planning activities that stimulate a child's mental, physical, emotional, and social growth. Students will learn First Aid and CPR and how to create a safe, healthy, and caring learning environment that will allow children to explore and develop their natural curiosity as they learn through play. A TB skin test will be given to each student before they begin working with preschool children.

Early Childhood Careers II, formerly Child Development Associate (CDA), Credential qualifies students for employment as a director of a child care center, a parent educator, a paraprofessional, or an assistant teacher at Head Start programs, and public and private preschools. The CDA student will work with preschool children in the on-site preschool lab and in internships with early childhood facilities in the community to fulfill the requirements of the CDA. Students will complete a Professional Resource File and test for their CDA through the Council for Professional Recognition.

Class	Course #	Grade Level	Prerequisites	Credits
Culinary Arts I	7140	11,12	Preference to Students w/ Foods & Nutrition	3 Cr.
Culinary Arts II	7141	12	Culinary Arts I	3 Cr.

Culinary Arts is an occupational course designed for persons who have future employment plans in food service. Candidates for the course should exhibit the following qualities: dependable, a desire to work with and help people, ambition and good physical and mental health. The 540 hours of training combine instruction and laboratory experience in a modern lab, as well as, on-the-job training in area food establishments. The ProStart program sponsored by the National Restaurant Association is part of the Culinary Arts class. It is a two-year curriculum that introduces the students to careers in the restaurant and food service industry. It provides the basic skills and knowledge to achieve success and increases the employability of students. The ProStart program works closely with employers, has articulation agreements with several colleges and has scholarships available to students completing the requirements for national certification. Prerequisite: Students who have maintained least a C average in math will be given first consideration.

INDUSTRIAL CAREER EDUCATION

Class	Course #	Grade Level	Prerequisites	Credits
Building Trades I	7201	11,12	Preference to students with C average in Algebra I or Algebra B	3 Credits
Building Trades II	7202	12	Building Trades I	3 Credits

Building Trades I is a program that prepares students for jobs in the construction field. The program consists of classroom instruction enhanced by hands-on experience of building a house. This class is also an introduction to commercial construction and concrete construction. Students interested in this program should: have the ability to work independently and in groups; have good hand-eye coordination; be comfortable working with heights; have the ability to stand for long periods; and be able to withstand elements of the weather. Subjects covered in the Building Trades program includes the following: safety; identification of tools; identification of measurements; safe tool usage; construction of floor system; wall layout; wall framing; constructing window and door frames; roof framing; installing windows, doors, soffit, and siding; hanging and finishing drywall; insulation; installing interior trim; and figuring square footage. Students are responsible for providing a tool belt, hammer, a 25-ft. tape measure, speed square, blue chalk line, box knife, and work boots.

Building Trades II students are expected to improve on first-year requirements, to show leadership, and to figure materials.

Class	Course #	Grade Level	Prerequisites	Credits
Automotive Technology I	7301	11,12	Preference to students with introductory computer class	3 Credits
Automotive Technology II	7302	12	Auto Technology I	3 Credits

Automotive Technology Automotive Technology is a two-year program designed to give students the basic skills necessary to begin a career in transportation, service and repair. There are eight competencies taught in Auto Technology. In an odd school year (e.g., 2013-2014) the following will be covered: shop safety and

pollution prevention, engine mechanical, electricity, and brakes. In an even school year (e.g., 2014-15) the following will be covered: shop safety and pollution prevention, engine performance, HVAC, steering, suspension, and manual drive-train. Employment opportunities from Automotive Technology include: general auto service tech (dealership or independent shop), automotive air conditioning specialist, alignment specialist, motorcycle specialist, engine performance specialist, brake specialist, marine specialist, automatic transmission specialist, service consultant, shop manager, parts supply and industrial maintenance. Students will be required to supply and launder work shirt and pants, cost not to exceed \$50.

Class	Course #	Grade Level	Prerequisites	Credits
Industrial Welding I	7401	11,12	None	3 Credits
Industrial Welding II	7402	12	Industrial Welding I	3 Credits

Industrial Welding is a course for students who are sincerely interested in welding as an occupation after graduation. Skills learned are reading a rule, math and blueprint reading for welders, arc welding, tig welding, mig welding, plasma and oxyacetylene cutting, use of hand signals around a crane, work ethic and safety.

Class	Course #	Grade Level	Prerequisites	Credits
Graphic Design and Printing I	7500	11,12	Introductory Computer Class	3 Credits
Graphic Design and Printing II	7501	12	Graphic Design and Printing I	3 Credits

Graphic Design and Printing I will teach students to design printed products using Apple computers using a windows based environment and Adobe Design software. They will learn to reproduce these designs via screen-printing, lithographic printing and digital printing. Students will be exposed to other printing methods through discussion and/or field trips.

Graphic Design and Printing II students will perfect the design and printing skills they learned in Graphic Design and Printing I. They will build upon their design skills by learning to use Adobe Dreamweaver and Flash to produce websites. Students will also sharpen their printing skills by completing advanced projects, which require the use of more colors and specialty substrates.

Students will choose a specialty area in either screen printing, graphic communications, or advertising design. Students will devote a semester to mastering their chosen area and managing this section of the classroom.

Class	Course #	Grade Level	Prerequisites	Credits
Health Occupations	7600	11,12	Preference to students with C average in science courses	3 Credits

Health Occupations is an entry-level class that is designed to help prepare the student with an interest in health care or health sciences. The student will get an in-depth study of anatomy and physiology, medical terminology, and will job shadow at local health care facilities. Guest speakers will be invited to share their

knowledge. Basic math and medical abbreviations will be covered, as well as, basic skills such as vital signs, assessment skills, and body mechanics. Students will explore different career paths/opportunities that are available in the health field and will develop a portfolio to use after graduation.

Certifications Available: First Aid and Cardiopulmonary Resuscitation. Certified Nurse Assistant training is available if student chooses (50-100 hours on-the-job training and certification exam to be completed upon completion of course).

Cost: CNA manual for those students choosing Certified Nurse Assistant training.

Employment Opportunities: Entry-level careers (i.e., dental assistant, emergency medical technician, physical therapist aide, etc.) require the person to be a high school graduate and have some additional training. Technical careers (i.e., nurse, radiology technologist, etc.) require two years of college. Professional careers (i.e., doctor, pharmacist, etc.) require two years of college or more (certification/license/registration.)

***SkillsUSA** is a student leadership organization for those taking career and work-oriented courses which promotes leadership, work skills, and competition in skill areas. SkillsUSA is an integral part of all the trade and industry courses. The organization prepares students to be good leaders in their communities; philanthropists; and skilled workers. Throughout the year the group will participate in many community service activities, acquire "soft" skills (being on time, being polite, getting along with co-workers, developing a positive work ethic, etc.); and participate in competitions. Students will be expected to participate at the local level and may choose to progress to the district, state, and national levels for further recognition and opportunities, especially scholarship opportunities.*