Family Farm and Home - WCPS Related Instruction - Team Lead Retail Sales
Any course below can be considered related instruction for this occupation.

BUSINESS EDUCATION

PRINCIPLES OF BUSINESS ADMINISTRATION AND MANAGEMENT
This is one of two foundation courses required for all pathways in the Business Management and Finance career cluster and is essential to all pathways. This course provides a foundational understanding of the role of business by exploring fundamental business concepts and key terminology. Students will gain experience in oral and written communications as well as enhancing listening and questioning skills. Students will collaborate daily using teamwork for problem solving and developing decision-making skills. This course will give the student a solid understanding of business ownership, management concepts, and marketing.

PRINCIPLES OF ACCOUNTING AND FINANCE
Principles of Accounting and Finance is one of two foundation courses required for all programs of study in the Business Management and Finance Career Cluster and is essential to all pathways. This course provides students with the knowledge necessary to manage and maintain a company's financial resources in daily operating decisions. A mastery of fundamental accounting concepts, skills, and competencies is essential in making informed business decisions. Students will learn to apply generally accepted accounting principles to determine the value of assets, liabilities, and owner's equity as they apply to various forms of manual and computerized accounting systems. Students will identify positions and career paths in the field of accounting and will examine the role of ethics and social responsibility in decision making. Competencies include: applying emerging technologies in order to complete appropriate office operations; desktop publishing and/or word processing software in order to create business documents and professional presentations. Industry standard office equipment and the most current Microsoft Office software available will be used in this course.

OFFICE SYSTEMS - EXCEL
Students will develop advanced skills using Microsoft's leading business software and provided the opportunity to acquire the Microsoft Office Specialist (MOS) credential. Students will be expected to think analytically, manipulate information, and use the computer as a productivity tool through integrated application programs. Expertise in technology will contribute to students' future career mobility, advancement potential, compensation and job satisfaction.

OFFICE SYSTEMS - WORD
Office Systems - Word provides the student with a study of basic business practices, information systems and computer applications. Students develop managerial and technical skills for business support operations through applied learning. Problem-solving skills development is incorporated throughout the course to meet the recommendations made through the Maryland Skills for Success. Competencies include: applying emerging technologies in order to complete appropriate office operations; desktop publishing and/or word processing software in order to

create business documents and professional presentations. Industry standard office equipment and the most current Microsoft Office software available will be used in this course.

ADVANCED BUSINESS MANAGEMENT
This course provides students with the knowledge that will prepare them for post-high school levels of education and entrylevel positions in the work force. Focus will be on the role of business in society; the changing nature of contemporary business; major management concepts, theories, and theorists, the processes of management, business law and ethics, and business communications. Career pathways will be examined and the use of business management knowledge in a variety of career clusters is also explored. Students will understand the business world and be more prepared to meet their career goals and objectives. Upon completion, students will take the Principles of Management CLEP exam. Students will be able to earn college credit through articulation agreements with local colleges.

BUSINESS MANAGEMENT CAPSTONE
Students will apply the knowledge and skills acquired in the previous business management courses to settings through the business management capstone project that will involve intense problem-solving in business management. Students who have not yet passed the Business Management CLEP exam may use their capstone project to reinforce preparation for the CLEP exam.

HONORS ACCOUNTING AND FINANCE II
Accounting and Finance II is designed to be the second accounting course for students enrolled in the Financing and Accounting Program of Study. This course provides students with accounting knowledge that will prepare them for post-high school levels of education and entry-level positions in the work force. Focus will be on accounting procedures necessary to address long and short-term assets and investments, long and short-term liabilities, inventory management, payroll procedures, and accounting ratios used the decision-making process. A comprehensive study of the accounting procedures used in establishing corporations, declaring and paying dividends, the formation and dissolution of partnerships, and distribution of net income and owners' equity statements is included in this course. Career pathways for accounting will be examined and the use of accounting knowledge in a variety of career clusters is also explored. Awareness of ethical issues and application of ethical decision-making models will be reinforced throughout the course. Students may earn college credit through an articulation agreement with Hagerstown Community College.

ACCOUNTING AND FINANCE III - CAPSTONE
Students will apply the knowledge and skills acquired in previous accounting and finance courses to settings through the Accounting and Finance Final Capstone Project. Students will participate in an end-of-course final project that will involve comprehensive problem-solving in accounting and finance.

MARKETING I

Marketing I introduces students to the processes and functions involved in transferring business products or services to a consumer. The study of marketing helps students gain a clearer picture of how key business functions are directly related to marketing activities. Classroom instruction is combined with the high school's Future Business Leaders of America (FBLA) activities to enhance the student's understanding of marketing and distribution.

MARKETING II

Marketing II gives students the opportunity to pursue in greater depth the development of marketing/management competencies necessary for full-time employment and job advancement in marketing and distribution businesses. Work-based learning is a strong component of this program and allows students to be involved in organized learning experiences in marketing, management, sales and merchandising. As with Marketing I, FBLA activities enhance the student's understanding and application of marketing concepts. Students will take the Marketing CLEP exam.

PRINCIPLES AND APPLICATIONS OF FINANCE

This is the foundation course for the Academy of Finance career pathway. Through this introduction to the financial world of business, students develop financial literacy as they learn about the function of finance in society. They will study income and wealth; examine financial institutions; study the risks and rewards of borrowing and investing; learn to identify the legal forms of business organization; learn how businesses raise capital; study key investment-related terms and concepts; develop an understanding of profit; and learn about various financial analysis strategies. Students also have the chance to explore, in depth, topics of high interest in the field of finance, research how innovations have changed the financial services field, and explore the types of careers that exist in finance today.

PRINCIPLES OF ACCOUNTING AND FINANCIAL REPORTING

Principles of Accounting and Financial Reporting provides students with an understanding of the accounting process and how to facilitate decision making by providing data and information to internal and external stakeholders. Students learn that accounting is an integral part of all business activities. They learn how to apply technology to accounting by creating formulas and inputting data into spreadsheets. Students are also introduced to the fundamentals of management accounting, including manufacturing and cost accounting, budgeting, accounting for managerial decision-making, and financial statement analysis. Students learn how to use accounting information for internal decision-making and planning and control. Regardless of the career path they choose, this course gives students the financial acumen necessary to make informed personal and business decisions. Students also examine career opportunities and the professional certifications and designations earned by individuals in the accounting profession.

FINANCIAL SERVICES

This course offers an overview of banks and other financial services companies. It introduces students to the origins of money banking and examines the early history of banking in the United States. Students study the financial services industry and the types of companies it

includes; learn about the services offered by such companies and analyze the ways these companies earn profits. Students will look closely at the job of a financial planner, learning to consider how all aspects of financial planning might affect a potential client, and learn about the importance of financial planning in helping people reach their life goals. This course includes lessons on saving, borrowing, credit, and all types of insurance, and covers various types of investments. Students also examine careers in financial services and planning.

ACADEMY OF FINANCE INTERNSHIP
Academy of Finance Internship is a program in which students use the skills and information learned in the classroom while performing a finance related job in a local business. Lasting 4-6 weeks (180 hours) students work in this paid internship in the summer between their junior and senior year or during either semester of their senior year.

HOSPITALITY AND TOURISM

PRINCIPLES OF HOSPITALITY AND TOURISM
The content of the introductory course of the Hospitality and Tourism Management completer will provide students with broadbased learning on the tasks, knowledge, and skills required by anyone wishing to build a career within the hospitality and tourism industry, including information that is required for operational level employee positions and responsibilities.

MARKETING
Marketing I introduces students to the processes and functions involved in transferring business products or services to a consumer. The study of marketing helps students gain a clearer picture of how key business functions are directly related to marketing activities. When taught at NHHS, emphasis will be placed on the application of marketing to Hospitality and Tourism Management.

HOSPITALITY AND TOURISM MANAGEMENT
In this course of the Hospitality and Tourism Management completer students focus on the leadership and managerial knowledge, skills, and abilities required for advancement in a management track in the hospitality and tourism industry.

HOSPITALITY AND TOURISM INTERNSHIP
Students participating in an internship will be placed in a professional setting under the supervision of a Hospitality and Tourism Management Professional that allows students to apply the skills and knowledge acquired from their previous coursework while practicing leadership and managerial skills during the rotation among station within the professional facility. The internship includes a minimum of 100 hours, which may be paid or unpaid. Success will be documented by the use of a competencies checklist.

CARPENTRY

FOUNDATIONS OF BUILDING AND CONSTRUCTION TECHNOLOGY (CORE)
The Foundations of Building and Construction course is the Core Curriculum of the Construction and Development Cluster. The NCCER Core Curriculum is taught within this course and is basis for all construction skills. NCCER strongly recommends that trainees successfully complete the Core Curriculum before advancing to Level One of their chosen field. The course of study descriptions correlates to the modules of the NCCER national standards and related work-based learning opportunities. The following modules are designed to be completed in approximately 72.5 hours of instruction and allows for an estimated 27.5 hours of related "hand-on" applications/work-based learning opportunities to reinforce and extend the learning.

CARPENTRY I
The course of study for Carpentry I (Level I) includes demonstration of student mastery of the following topics: wood building materials; fasteners and adhesives; hand and power Tools; floor systems; wall and ceiling framing; roof framing; windows and exterior doors.
CARPENTRY II
The course of study for Carpentry II includes demonstration of student mastery of the following topics: reading plans and elevations; site layout one—distance measurement and leveling; introduction to concrete and reinforcing materials; foundations and flatwork; concrete forms; reinforcing concrete; handling and placing concrete; manufactured forms. To be a completer in this NCCER pathway students must take and pass the Core Battery exams and take all of the Level I exams.

CARPENTRY CAPSTONE
This class focuses on the advanced design necessary to work within the Carpentry and Construction field. Advanced architectural design skills are developed through lab-based instruction using Autodesk software tools (AutoCAD and Revit Architecture). Students will have the opportunity to experience CAD and if time allows students will have the opportunity to transition into Revit Architecture. Primary focus will be to design and develop drawings that are used in the construction industry. This class will be the capstone that pulls everything together from the conception to the final product. Students will be design and construct a capstone project and/or a co-op experience. Student will have the opportunity to test for NCEER Carpentry 2 Certification, AutoCAD User Certification, and/or Revit User certification. Co-op/apprenticeship may be available to qualifying students.

CONSTRUCTION DESIGN AND MANAGEMENT

INTRODUCTION TO CONSTRUCTION AND DESIGN
This course provides an overview of the design and construction process as well as an introduction to the many career options within the field of construction. Students will be introduced to core concepts in design and construction including: construction methods and

materials; fundamental elements of design; and innovative technologies including Green Construction and Design. Students will be introduced to design software as they complete basic design projects, such as floor plans. In addition, students will begin to develop a better understanding of the fields' interrelationships.

PRINCIPLES OF CONSTRUCTION DESIGN
This course provides students with an in-depth understanding of the construction design process. Students will complete a series of increasingly complex construction design projects in which they incorporate all aspects of the construction process, including zoning and regulation requirements; surveying; and project planning. Students will use design software to generate site plans (topography) as well as detailed building plans. The use of portfolios is introduced as a means of showing the developmental stages of a design project. Students will use 3D computer software to complete projects. Students will prepare and test for AutoCAD Certification.

ADVANCED DESIGN AND 3-D MODELING
Students will work in teams to fully develop designs and a construction management plan for a pre-determined site. In this yearlong project, students begin with the legal description and topography of the site and create a proposal for development. The construction design project must meet the client's needs, budget, and the site characteristics. Students will generate a series of plans to be included with the proposal for submission to an industry review panel for approval. Upon completion of the course, students will demonstrate advanced design/drafting skills and be prepared for the AutoCAD certification exam.

ADVANCED CONSTRUCTION MANAGEMENT
This capstone course builds on an understanding of the construction design process to advanced knowledge and skill in construction management. In this course, students will be required to work in teams to complete a project from existing plans. The year-long project will focus on building codes and standards, coordination of the construction process, estimating, planning and scheduling; and site management. Students will complete a portfolio of their design and construction management projects for review by an industry panel. Students are prepared to take exams for AutoCAD credentialing.

POWER MECHANICS

AGRICULTURE SCIENCE
Agriculture Science is designed to explore the basic theory and uses of biotechnology in modern agriculture sciences. Course content focuses on plant and animal improvement, disease and insect control, integrated pest management, aquiculture, aquaculture, genetic

engineering, embryo transplants, and other modern veterinary practices. Students are expected to research new developments in life science.

POWER MECHANICS I
Power Mechanics I is designed to familiarize students with the basic theory and specialized skills relative to mechanics in the diverse field of agriculture. Skills are developed in the areas of safety, material planning, tool identification and use, carpentry, electricity, painting, small gasoline engines, welding, and leadership.

POWER MECHANICS II
Power Mechanics II is designed as an in-depth study of mechanics in agriculture. Students receive additional training in the areas studied in Power Mechanics I. Additional training is offered in tool fitting, metalworking and welding.

POWER MECHANICS CAPSTONE
Power Mechanics Capstone is designed as an in-depth study of mechanics in agriculture. Students receive additional training in the areas studied in Power Mechanics I and II. Students will design and complete projects based on interest in an agriculture related topic. Students will be required to present their Capstone project to an independent judging panel.

CONSTRUCTION AND BUILDING TRADES

INTRODUCTION TO CONSTRUCTION DESIGN AND MANAGEMENT AND CONSTRUCTION SAFETY
This course is an introduction to the construction industry, with a focus on residential and commercial building systems. Students
will practice basic carpentry skills, including proper tool use, power and hand, and proper safety. Students will have the opportunity to be on an active build site and practice their introductory skills. Students will also develop an understanding of the design and construction process. Students will have the opportunity to test for OSHA 10 Certification.

CIVIL ARCHITECTURE SITE DEVELOPMENT AND INTRODUCTION TO ACTIVE BUILDING SITES
This class will introduce students to surveying and the site development process. Students will also be introduced to the equipment that is used on an active work site, including power tools and other construction and carpentry equipment. This class also allows students to further their carpentry skills as they work on an active build site or house project that is provided by the program. Students will have the opportunity to test for NCEER Carpentry 1 Certification.

CONSTRUCTION PLAN READING AND DEVELOPMENT AND PRINCIPLES OF CONSTRUCTION DESIGN
This class will introduce students to plan reading and plan development. This class will examine the materials, codes and the engineering that is used in construction. These tasks will be

completed as students are able to work at an active build site. Instructional topics include the development of carpentry and related construction skills, material selection, computer-related skills in construction planning, material take-off and estimating, and blueprint reading. Students will continue to participate in a schoolbased business “house project” where they experience building a complete house from start to finish. Students may have the opportunity to test for Forklift Certification.

ADVANCED DESIGN AND 3D MODELING AND ADVANCED CONSTRUCTION MANAGEMENT
This class focuses on the advanced design necessary to work within the Carpentry and Construction field. Advanced architectural design skills are developed through lab-based instruction using Autodesk software tools (AutoCAD and Revit Architecture). This class will begin with AutoCAD and transition into Revit Architecture. Primary focus will be to design and develop drawings that are used in the construction industry. This class will be the capstone that pulls everything together from the conception to the final product. Students will be on an active work site and/or a co-op experience. Student will have the opportunity to test for NCEER Carpentry 2 Certification, AutoCad User Certification, and/or Revit User certification. Co-op/apprenticeship may be available to qualifying students. This course is designed to provide students with the opportunity to earn college credit.

CASE

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES
Students’ experiences in AFNR will involve the study of communication, sciences of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. Students will connect their lessons and Supervised Agricultural Experience (SAE) and FFA.

PRINCIPLES OF AGRICULTURAL SCIENCE - PLANT SCIENCE
The course is structured to enable all students to have a variety of experiences that will provide an overview of the field of agricultural science with a foundation in plant science. Students will work in teams, exploring hands-on projects and activities, to learn the characteristics of plant science and work on major projects and problems similar to those that plant science specialists, such as horticulturists, agronomists, greenhouse and nursery managers and producers, and plant research specialists face in their respective careers. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. In addition, students will connect the Plant Science lessons and Supervised Agricultural Experience (SAE) and FFA.

ANIMAL AND PLANT BIOTECHNOLOGY
The students study in biotechnology through biochemistry, safety and laboratory techniques, regulations, laws, and ethics, biotechnology research, DNA/gene transfer, emerging technology, microbial biotechnology, and transgenic material. The implications for agriculture will be learned through biofuels, embryo transfer, micropropagation, and biotechnology products and services. Students will also look to the future as they learn about careers and participate in Supervised Agricultural Experience programs (SAE).

AGRICULTURAL BUSINESS, RESEARCH, AND DEVELOPMENT
The Agricultural Business, Research, and Development course will serve as the Curriculum in Agriculture Science Education (CASE™) capstone course. Instruction and continued inquiry-based projects are designed to integrate key learning from previous CASE™ courses and have students apply them to real-world career situations through Supervised Agricultural Experience (SAE) projects or other internship/ work-based learning opportunities.

CASE AG ENGINEERING

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES
Students' experiences in AFNR will involve the study of communication, sciences of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. Students will connect their lessons and Supervised Agricultural Experience (SAE) and FFA.

AGRICULTURE POWER AND TECHNOLOGY
The focus of Agricultural Power and Technology (APT) is to expose to students to mechanics, power, technology, and career options in the world of agriculture. Students participating in the APT course will have experiences in various mechanical and engineering concepts with exciting hands-on activities, projects, and problems. Student's experiences will involve the study of energy, tool operation and safety, material properties, machine operation, and structural components. Students will acquire the basic skills to operate, repair, engineer, and design agricultural tools and equipment and apply the engineering principles to the construction of machines and structures. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

MECHANICAL SYSTEMS IN AGRICULTURE

The Mechanical Systems in Agriculture course is designed to provide rigorous applications in the agricultural engineering field. Throughout the course, students apply technical and engineering skills while becoming competent in the processes used to operate, repair, engineer, and design agricultural structures, engines, and equipment. Students practice technical skills including reading prints, troubleshooting machines, documenting an engine tear down and assembly, reading schematics, researching machine replacement parts, and calculating production efficiencies. The engineering portion of the course includes prototype development, computer-aided design (CAD), 3D printing, documentation of machine processes, machine automation and programming, testing designs for structural integrity, and calculating machine speed and power. Students will maintain an Engineering Notebook throughout the course documenting their experiences in the shop and laboratory. Research and engineering design will be highlighted as students develop and conduct industry-appropriate engineering projects.

AGRICULTURAL BUSINESS, RESEARCH, AND DEVELOPMENT
The Agricultural Business, Research, and Development course will serve as the Curriculum in Agriculture Science Education (CASE™) capstone course. Instruction and continued inquiry-based projects are designed to integrate key learning from previous CASE™ courses and have students apply them to real-world career situations through Supervised Agricultural Experience (SAE) projects or other internship/ work-based learning opportunities.

CASE NATURAL RESOURCES

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES
Students' experiences in AFNR will involve the study of communication, sciences of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. Students will connect their lessons and Supervised Agricultural Experience (SAE) and FFA.

NATURAL RESOURCES AND ECOLOGY
This course is a foundation course within the CASE sequence of courses. The course provides students a variety of experiences in the fields of natural resources and ecology. Students will explore hands-on projects and activities while studying topics such as land use, water quality, stewardship, and environmental agencies. Study of the natural world including biomes, land, air, water, energy, use and care as well as a focus on issues surrounding man's interaction with the Earth will be addressed in this course. Students will select an ecosystem to study throughout the course and apply principles of natural resources and ecology from each unit of study to that ecosystem.

ENVIRONMENTAL SCIENCE ISSUES

Students will complete hands-on activities, projects, and problems that simulate actual concepts and situations found in the environmental science field, allowing students to build content knowledge and technical skills. Students will investigate areas of environmental science including ecosystem management, sustainable agriculture, energy choices, and pollution. Students are immersed in inquiry-based exercises filled with activities, projects, and problems, which develop data acquisition and analysis techniques, critical thinking and evaluation abilities related to environmental issues, as well as independent research and problem solving.

AGRICULTURAL BUSINESS, RESEARCH, AND DEVELOPMENT
The Agricultural Business, Research, and Development course will serve as the Curriculum in Agriculture Science Education (CASE™) capstone course. Instruction and continued inquiry-based projects are designed to integrate key learning from previous CASE™ courses and have students apply them to real-world career situations through Supervised Agricultural Experience (SAE) projects or other internship/ work-based learning opportunities.

ENVIRONMENTAL RESOURCE MANAGEMENT

AGRICULTURE SCIENCE
Agriculture Science is designed to explore the basic theory and uses of biotechnology in modern agriculture sciences. Course content focuses on plant and animal improvement, disease and insect control, integrated pest management, aquiculture, aquaculture, genetic engineering, embryo transplants, and other modern veterinary practices. Students are expected to research new developments in life science.

FISH/WILDLIFE
Fish/Wildlife introduces students to wildlife in the Eastern United States. Students learn identification, habits, habitat requirements, and ecosystem/food chain interactions. Students study the physical characteristics of the oceans, estuaries, and freshwater systems. The history of wildlife management practices and policies and the benefits gained from wildlife are also covered. Fish/ Wildlife places emphasis on managing wildlife populations, habitat evaluation, and outdoor safety. Public policies and government laws pertaining to wildlife management are also covered. Career opportunities in wildlife management are explored.

FORESTRY/SOILS
Forestry/Soils provides a broad, basic introduction to dendrology and silviculture from the earliest uses of forests to the latest methods in the field. Topics considered include: conservation, forest and wildlife management, energy and resources, tree harvesting, damage caused by fire, and control of weather, insects, animals, and diseases. Major emphasis is placed on tree identification, employment opportunities, forest products, wood characteristics, safety practices, and business methods relating to forestry. Students study the formation of soils, their capability classes, and series. Types of soil erosion and methods to control the

erosion on agricultural and non-agricultural lands are also discussed. Career opportunities are explored.

INTRODUCTION TO SUSTAINABLE AGRICULTURE
Introduction to Sustainable Agriculture is a one-semester course designed for students interested in exploring sustainable methods of agriculture to minimize the impacts of conventional agricultural practices on the natural environment. Students will research the diverse viewpoints associated with different aspects of agriculture, and agricultural sustainability, from various natural science perspectives, as well as other disciplines. In addition, students will critically examine some of the intended and unintended consequences of agriculture, and the various questions these raise about sustainability. Examples will be drawn from current and historical practices of agriculture. This course is a possible dual credit. This course is designed to provide students with the opportunity to earn college credit.

ENVIRONMENTAL AG SCIENCE - ANIMAL SCIENCE

FOUNDATIONS OF ENVIRONMENTAL AGRICULTURAL SCIENCE
This course provides an overview of animal, plant, and environmental sciences to facilitate student choice of pathway for further study. The environmental science portion of the course introduces students to the diverse areas of environmental resources management: its principles, practices, and career opportunities. Focus is on the policies and conversation management practices related to water, soil, air, forests, fish and wildlife, land use, and energy resources as well as recreational uses of those resources. The basic theory and uses of biotechnology in modern agriculture sciences focuses on plant and animal improvement, disease and insect control, integrated pest management, aquaculture, genetic engineering, embryo transplants and other modern veterinary practices. Students learn greenhouse management, plant propagation, nutrition, and reproduction, vegetable and fruit gardening, care of houseplants, insects, and disease control by studying how plants grow and are used in daily life.

PRODUCTION AND COMPANION ANIMALS
This course is a general introduction to the industry associated with large production and small companion animals, its history, careers available, and the importance of safety and environment. Marketing and management of animal agriculture through selection, breeding, feeding and food safety, health, housing, and equipment are emphasized (animal pathway course).

VETERINARY TECHNOLOGY
In this course, the areas of study include comparative anatomy and physiology of body systems, identification and prevention of disease, nutrition, clinical examination of animals, and basic principles of animal surgery. Students study advanced work in animal health and reproduction, as well as immunology, public health, and environmental controls (animal pathway course).

BIOTECHNOLOGY

Biotechnology students study genetic engineering and how gene technology is transforming agriculture while making advances in medicine for humans, animals, and plants. Available at CSHS.

ENVIRONMENTAL AG SCIENCE - ENVIRONMENTAL

FOUNDATIONS OF ENVIRONMENTAL AGRICULTURAL SCIENCE
This course provides an overview of animal, plant, and environmental sciences to facilitate student choice of pathway for further study. The environmental science portion of the course introduces students to the diverse areas of environmental resources management: its principles, practices, and career opportunities. Focus is on the policies and conversation management practices related to water, soil, air, forests, fish and wildlife, land use, and energy resources as well as recreational uses of those resources. The basic theory and uses of biotechnology in modern agriculture sciences focuses on plant and animal improvement, disease and insect control, integrated pest management, aquaculture, genetic engineering, embryo transplants and other modern veterinary practices. Students learn greenhouse management, plant propagation, nutrition, and reproduction, vegetable and fruit gardening, care of houseplants, insects, and disease control by studying how plants grow and are used in daily life.
AQUATICS AND WILDLIFE
The Aquatics and Wildlife course introduces the student to wildlife, both aquatic and land-dwelling, in the eastern United States. Students learn identification, habits, habitat requirements, and ecosystem/food chain interactions in freshwater and marine ecosystems and wetlands. The course also covers the history of management practices and policies and the benefits gained from aquatics & wildlife as well as managing aquatic and wildlife populations, habitat evaluation, and outdoor safety. The course covers public policies and government laws pertaining to wildlife and aquatic management, aquaculture structure, and equipment. Students explore career opportunities in aquatic and wildlife management (Environmental-Natural Resources pathway course).

FORESTRY, SOILS AND THE ENVIRONMENT
In this course, students learn the basics of soils as a complex system of organic and inorganic substances. Topics include the roles of biogeochemical cycles and microbial habitat. Students also study the formation of soil, their capability classes, and series. Students study types of soil erosion and methods to control the erosion on agricultural and non-agricultural lands. The study of forests provides a broad, basic introduction to dendrology (botanical study of trees) and silvaculture (study of forests) from the earliest uses of forests to the latest methods in the field. Topics include conservation, forest and wildlife management, energy and resources, tree harvesting, damage caused by fire, and control of weather, insects, animals, and diseases. Major emphasis is placed on tree identification, employment opportunities, forest products, wood characteristics, safety practices, and business methods relating to forestry. Students explore career opportunities (Environmental-Natural Resources pathway course).