Environmental and Natural Resources I Course # 6851

**Instructor:**

 **Name:** John M. Hess Med/NBCT

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 **School Phone:** (980) 434-6900

**Description:** This course provides an introduction to environmental studies, which includes topics of instruction in renewable and non-renewable natural resources, history of the environment, personal development, water and air quality, waste management, land use regulations, soils, meteorology, fisheries, forestry, and wildlife habitat. Skills in biology and algebra are reinforced in this class. Work-based learning strategies appropriate for this course are agriscience projects, field trips, shadowing, and supervised agricultural experience. Supervised agricultural experience programs and FFA leadership activities are integral components of the course and provide many opportunities for practical application of instructional competencies.

Course Goals: **Through the course work instructors will enhance the experiences of teamwork, leadership and career ready skills.** topics of instruction in renewable and non-renewable natural resources, history of the environment, personal development, water and air quality, waste management, land use regulations, soils, meteorology, fisheries, forestry, and wildlife habitat. Skills in biology and algebra are reinforced in this class.

**All students are required to obtain NC Wildlife Hunter’s safety certification and one Advanced certification offered by NC Wildlife. A copy of the certification shall be given to Mr. Hess for records.**

**Expected Student Learning Outcomes**: Upon completing the Environmental and Natural Resources I course, students should be able to: Pass the summative assessment (VoCats) with a minimum score of 88%. Be career ready and have completed and submitted a completed SAE project.

**Types of Assignments:** Hands on, Performance, technical writing, Daily class work, Speaking, SAE project.

**Supervised Agricultural Experience Program (SAE):** SAE is a planned, practical activity conducted outside of class time in which students develop and apply agricultural knowledge and skills. Examples may include starting and running an agricultural related enterprise, placement into an agribusiness occupation,

 **Guidelines for Term Grading:** Term grading will be completed through class work, performance, participation, and project rubrics. No one item or division will be weighted, open ended scoring will occur.

 **Absence Policy:** May not miss more than 6 days for this course. It is the responsibility of the student (and not the teacher) to acquire and make up work missed during an absence. If you miss class on the day of an exam or quiz you will be responsible for scheduling a make-up with the teacher.

**Student Organization (FFA):** All students are highly encouraged to participate in the FFA Organization.  Some opportunities offered by the FFA are local activities, career development events, travel and awards.  The local chapter meets every other Thursday with a banquet in May.  FFA dues are $20.00 per student per year.

**Course Outline:**

 **LEADERSHIP DEVELOPMENT**

* + FFA
	+ SAE
	+ Parliamentary Procedure
	+ Public Speaking

 **EMPLOYABILITY SKILLS**

* + Careers in Environmental and Natural resources
	+ SAE
	+ Record Keeping
	+ Marketing

 **INTRO. ENVIRONMENTAL SCIENCE, NATURAL RESOURCES & CONSERVATION STUDIES**

* + Interaction and interdependence of the environment
	+ Sustainability and conservation in relation to humans
	+ Human population growth and resource demands

 **SCIENCE AND TECHNOLOGY IN THE ENVIRONMENT**

* + Basic Life Processes
	+ Classify living things by their scientific names and roles
	+ Earth Science and its relation to the environment
	+ Chemistry of matter and the environment
	+ Basic Chemistry
	+ pH
	+ Chemical sources of environmental hazards
	+ Ecology and the environment on adaption and change
	+ Population Ecology
	+ Weather and climate

 **NATURAL RESOURCES AND THE ENVIRONMENT**

* + Soil and soil formation processes
	+ Classify and evaluate soil properties
	+ Causes and effects of soil erosion
	+ Proper soil conservation practices
	+ Nature, importance and sources of water
	+ Water storage, distribution and management
	+ Water quality
	+ Air pollution and importance of air quality relative to plant and animal life
	+ Detection and control of air pollution
	+ Sources and types of wastes
	+ Waste management and disposal

**THE MANAGEMENT OF FISH ENVIRONMENTS**

* + Lake habitat and basic fishery management
	+ ID and differentiate freshwater fish common of NC
	+ Characteristics of ocean and estuarine ecosystems
	+ Ocean cultivation as related to regulations and laws

 **THE MANAGEMENT OF WILDLIFE**

* + Wildlife habitat requirements and game management practices
	+ Factors that have affected wildlife in NC
	+ Classify NC migratory, game birds, Raptors and wildlife mammals as related to Agriculture production

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I have read and understand the course outline, expectations, consequences and grading policy for Horticulture I. I also give permission to utilize any photos taken during class or while participating in FFA events for bulletin board, FFA website, or any other positive promotion of our students and our FFA Chapter.

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 *Student Signature and Date Parent Signature and Date*

I look forward to an exciting semester! John M. Hess – Agriculture Teacher