

VoCATS

Course Blueprints

Agricultural Education

6821 Animal Science I

North Carolina State University
College of Agriculture & Life Sciences
Department of Agricultural & Extension Education
Public Schools of North Carolina
State Board of Education • Department of Public Instruction
Office of Instructional and Accountability Services
Division of Instructional Services

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VoCATS Course Blueprint

A course blueprint is a document laying out the framework of the curriculum for a given course.

Shown on the blueprint are the units of instruction, the core competencies in each unit, and the specific objectives for each competency. The blueprint illustrates the recommended sequence of units and competencies and the cognitive and performance weight or relative importance of the objective within the course.

The blueprint is intended to be used by teachers in planning the course of work for the year preparing daily lesson plans, and constructing instructionally valid assessments.

For additional information about this blueprint, contact program area staff. For additional information about the VoCATS, contact program area staff or VoCATS, Career-Technical Education, Division of Instructional Services, North Carolina Department of Public Instruction, 6358 Mail Service Center, Raleigh, North Carolina 27699-5358, 919/807-3876, email: rwelfare@dpi.state.nc.us.

Interpretation of Columns on VoCATS Course Blueprints

No.	Heading	Column information
1	Comp# Obj.#	Comp=Competency number (three digits); Obj.=Objective number (competency number plus two-digit objective number).
2	Unit Titles/Competency and Objective Statements	Statements of unit titles, competencies per unit, and specific objectives per competency. Each competency statement or specific objective begins with an action verb and makes a complete sentence when combined with the stem "The student will be able to. . ." (The stem appears once in Column 2.) Outcome behavior in each competency/objective statement is denoted by the verb plus its object.
3	Time Hrs	Space for teachers to calculate time to be spent on each objective based on their individual school schedule and the students' performance on preassessments.
4	COURSE % Cognitive	A percentage indicates the relative importance or weight of each unit within the total course or program, each competency within the total course or program, or each objective within the total course or program. Information in Column 5 is used to plan the yearly calendar of work and as a Test Blueprint for preassessments and postassessments.
5	COURSE % Perform	A percentage indicates the relative importance or weight of each competency within a specific unit or each objective within a specific unit. Information in Column 4 is used to plan the yearly calendar of work and as a Test Blueprint for interim assessments.
6	Type Behavior	Classification of outcome behavior in competency and objective statements. (C=Cognitive; P=Psychomotor; A=Affective)
7	Integrated Skill Area	Integrate Skills codes: A=Arts; C=Communications; H=Health/Safety; M=Math; SC=Science; SS=Social Studies.
8	Core Supp	Designation of the competencies and objectives as Core or Supplemental. Competencies and objectives designated Core must be included in the yearly calendar of work.

AGRICULTURAL EDUCATION
COURSE BLUEPRINT for 6821: ANIMAL SCIENCE I
(Range in Hours: 135-180)

Comp # Obj #	Unit Titles/Competency and Objective Statements (the learner will be able to:)	Time	Cognitive %	Performance %	Type Behavior	Integrated Skill Area	Core
1	2		4	5	6	7	8
			100%				
	Total Course Weight		80%	20%			
A.	INTRODUCTION TO ANIMAL SCIENCE		27%	2%			
001.00	Investigate agricultural animals in order to build a foundational knowledge for advanced animal science studies.		9%	2%	C3P	SC	Core
001.01	<i>Define terms used to distinguish animals by sex, age, and physical traits in the beef, swine, and poultry industry.</i>		3%		CI	SC	Core
001.02	<i>Identify the major breeds of beef, swine, and poultry.</i>		3%		CI	SC	Core
001.03	<i>Recognize the major external parts of cattle, swine and poultry.</i>		3%		CI	SC	Core
001.04	<i>Use live specimens to locate the external parts of cattle, swine and poultry.</i>			2%	C3P	SC	Core
002.00	Recognize the benefits and importance of agricultural animals.		5%		C1	SC	Core
002.01	<i>State the importance of livestock products and by-products.</i>		3%		CI	SC	Core
002.02	<i>Describe the economic importance and trends for each of the major classes of livestock and poultry produced in North Carolina.</i>		2%		CI	SC	Core
003.00	Identify marketing systems used in the livestock and poultry industry.		9%		C1	SC	Core
003.01	<i>Define cutability, degree of lean, marbling and quality features used to market beef and swine.</i>		2%		CI	SC	Core
003.02	<i>Identify the wholesale and retail cuts of beef and swine.</i>		2%		CI	SC	Core
003.03	<i>Define terminology used in poultry carcass selection and evaluation.</i>		2%		CI	SC	Core
003.04	<i>Describe methods used to market livestock and poultry.</i>		2%		CI	SC	Core
003.05	<i>Label the wholesale and retail cuts of beef and swine</i>		1%		CI	SC	Core
004.00	Identify social issues with animal science.		4%		C1	SC/SS	Core
004.01	<i>Define animal welfare issues.</i>		2%		CI	SC/SS	Core
004.02	<i>Define animal rights issues.</i>		2%		CI	SC/SS	Core

Comp # Obj #	Unit Titles/Competency and Objective Statements (the learner will be able to:)	Time	Cognitive %	Performance %	Type Behavior	Integrated Skill Area	Core
1	2		4	5	6	7	8
B.	LEADERSHIP FOR CAREER DEVELOPMENT		11%	3%			
005.00	Examine leadership organizations as related to the animal science industry.		2%	1%	C3P	C	Core
005.01	<i>Assess opportunities for leadership development in animal science industry organizations.</i>		2%		C2	C	Core
005.02	<i>Examine the significance and meaning of ceremonies and traditions in organizations such as FFA.</i>			1%	C3P	C	Core
006.00	Demonstrate the process used in conducting business meetings in animal science organizations.		2%	1%	C3P	C/SS	Core
006.01	<i>Explain the role of parliamentary law in the conduction of business.</i>		2%		C3	C/SS	Core
006.02	<i>Demonstrate parliamentary abilities that would be used in a business meeting.</i>			1%	C3P	C/SS	Core
007.00	Apply appropriate techniques in public speaking.		2%	1%	C3P	C	Core
007.01	<i>Identify the parts of a speech.</i>		2%		C1	C	Core
007.02	<i>Deliver a speech that includes all three major parts using criteria established by the FFA Public Speaking contest.</i>			1%	C3P	C	Core
008.00	Define opportunities for work-based learning experiences related to the animal industry.		5%		C1	C	Core
008.01	<i>Identify animal industry careers and related employment opportunities.</i>		2%		C1	C	Core
008.02	<i>Describe characteristics, preparation and credentials needed in animal industry careers.</i>		3%		C1	C	Core
C.	MAINTAINING RECORDS IN THE ANIMAL INDUSTRY		6%	4%			
009.00	Examine the Supervised Agricultural Experience component of the animal science class.		2%	1%	C3P	C	Core
009.01	<i>Identify the component parts of the Supervised Agricultural Experience Record used in the animal science class.</i>		2%		C1	C	Core
009.02	<i>Correctly record entries in the SAE Record.</i>			1%	C3P	M/C	Core

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1	2		4	5	6	7	8
010.00	Examine financial record-keeping systems used in the animal industry.		2%	1%	C3P	M/C	Core
010.01	<i>Define the terminology used in financial record-keeping systems, such as asset, liability, inventory, etc..</i>		2%		C1	M/C	Core
010.02	<i>Correctly record entries in a financial record system.</i>			1%	C3P	M/C	Core
011.00	Differentiate identification systems used in the animal industry.		2%	2%	C3P	M/SC/C	Core
011.01	<i>Define identification systems including branding, ear notching, and tagging that are used in the animal industry.</i>		2%		C1	M/SC/C	Core
011.02	<i>Select animals according to a given identification system.</i>			2%	C3P	M/SC/C	Core
D.	PRINCIPLES OF DIGESTION AND ANIMAL NUTRITION		12%	4%			
012.00	Analyze the parts and functions of the digestive systems of farm animals.		6%	2%	C3P	H/SC	Core
012.01	<i>Describe the functions of the major parts of the digestive systems for ruminants.</i>		2%		C1	H/SC	Core
012.02	<i>Describe the functions of the major parts of the digestive systems for non-ruminants.</i>		2%		C1	H/SC	Core
012.03	<i>Describe the functions of the major parts of the digestive systems for poultry.</i>		2%		C1	H/SC	Core
012.04	<i>Inspect the digestive systems for livestock and poultry.</i>			2%	C3P	H/SC	Core
013.00	Distinquish the functions and sources of feed nutrients for farm animals		6%	2%	C3P	SC	Core
013.01	<i>Identify the five major groups of nutrients.</i>		2%		C1	H/SC	Core
013.02	<i>Describe the function of the five major groups of nutrients.</i>		2%		C1	H/SC	Core
013.03	<i>Identify sources for each of the major nutrients.</i>		2%		C1	H/SC	Core
013.04	<i>Select the appropriate feed source for the given nutrients.</i>			2%	C3P	H/SC	Core
E.	ANIMAL REPRODUCTION AND GENETICS		20%	3%			
014.00	Discuss reproduction management used in the animal science industry.		4%		C2	H/SC	Core
014.01	<i>Define terminology related to reproductive management and breeding systems including castration, colostrum, estrus, gestation, lactation, and parturition.</i>		2%		C1	H/SC	Core
014.02	<i>Discuss crossbreeding, grading up, inbreeding, linebreeding, and purebred breeding.</i>		2%		C2	H/SC	Core

