

VoCATS Course Blueprint

Agricultural Education

6812 Agricultural Production II

*Public Schools of North Carolina
State Board of Education • Department of Public Instruction
Curriculum and School Reform Services
Division of Secondary Education
Career-Technical Education*

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Department of Agricultural & Extension Education*

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This blueprint has been reviewed by business and industry representatives for technical content and appropriateness for the industry. Contact Aaron Fleming, State Agricultural Education Curriculum Coordinator at aaron_fleming@ncsu.edu for more information.

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 of the objective within the course.

The blueprint should be used by teachers to plan the course of work for the year, prepare daily lesson plans, construct instructionally valid interim assessments. Statewide assessments are aligned directly with the course blueprint.

For additional information about this blueprint, contact program area staff. For additional information about VoCATS, contact program area staff or VoCATS, Career-Technical Education, Division of Secondary Education, North Carolina Department of Public Instruction, 6359 Mail Service Center, Raleigh, North Carolina 27699-6359, 919/807-3876, VoCATS@dpi.state.nc.us.

Interpretation of Columns on VoCATS Course Blueprints

No.	Heading	Column information
1	Comp# Obj.#	Comp=Competency number (two digits); Obj.=Objective number (unique course identifier plus competency number and 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 learner 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 the course blueprint, their individual school schedule, and analysis of students' previous knowledge on the topic.
4&5	<u>Course Weight</u> Cognitive Performance	Shows the relative importance of each objective, competency, and unit. Weight is broken down into two components: cognitive and performance. Add the cognitive and performance weights shown for an objective in columns 4 and 5 to determine its total course weight. Course weight is used to help determine the percentage of total class time that is spent on each objective. The breakdown in columns 4 and 5 indicates the relative amount of class time that should be devoted to cognitive and performance activities as part of the instruction and assessment of each objective. Objectives with performance weight should include performance activities as part of instruction and/or assessment.
6	Type Behavior	Classification of outcome behavior in competency and objective statements. (C=Cognitive; P=Performance)
7	Integrated Skill Area	Shows links to other academic areas. Integrated skills codes: A=Arts; E=English Language Arts; CD=Career Development; CS=Information/Computer Skills; H=Healthful Living; 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 Annual Planning Calendar and are assessed on the statewide assessments..

Career-Technical Education conducts all activities and procedures without regard to race, color, creed, national origin, gender, or disability. The responsibility to adhere to safety standards and best professional practices is the duty of the practitioners, teachers, students, and/or others who apply the contents of this document.

AGRICULTURAL EDUCATION
COURSE BLUEPRINT for 6812 AGRICULTURAL PRODUCTION II
(Recommended hours of instruction: 135 -180)

Comp# Obj.#	Unit Titles/Competency and Objective Statements (The learner will be able to:)	Time	Cognitive Weight	Performance Weight	Type Behavior	Integrated Skill Area	Core/ Supp
1	2	3	4	5	6	7	8
			100%				
	Total Course Weight		66%	34%			
A	LEADERSHIP DEVELOPMENT		3%	11%			
AQ01.00	Apply the major components of leadership involved in successful employment.		3%	2%	C3P		
AQ01.01	<i>Remember leadership qualities desired by the agricultural production industry.</i>		3%		C1	CD/E/SS	Core
AQ01.02	<i>Implement leadership qualities through participation in the agricultural production instructional program.</i>			2%	C3P	CD/ESS	Core
AQ02.00	Apply principles of public speaking and parliamentary procedure.			9%			
AQ02.01	<i>Execute principles of public speaking to deliver a speech on an agricultural production topic.</i>			4%	C3P	E	Core
AQ02.02	<i>Implement principles of parliamentary procedure to conduct an orderly transaction of business utilizing Robert's Rules of Order.</i>			5%	C3P	E/SS	Core
B	SUPERVISED AGRICULTURAL EXPERIENCE PROGRAM		5%	4%			
AQ03.00	Create a school-to-work employment plan.		3%	2%	C3P		
AQ03.01	<i>Recall procedures for planning and implementing a school-to-work employment plan.</i>		3%		C1	CD/E	Core
AQ03.02	<i>Produce an individual written school-to-work employment plan based on career objectives..</i>			2%	C3P	CD/E	Core
AQ04.00	Apply opportunities for work-based learning and Supervised Agricultural Experience record keeping.		2%	2%	C3P		
AQ04.01	<i>Classify types of work-based learning available.</i>		2%		C2	CD/E/M	Core
AQ04.02	<i>Implement procedures for keeping SAE records.</i>			2%	C3P	M	Core

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1	2	3	4	5	6	7	8
C	LIVESTOCK AND POULTRY PRODUCTION AND MANAGEMENT		20%				
AQ05.00	Understand reproductive principles and breeding systems used in livestock and poultry production.		8%		C2		
AQ05.01	<i>Explain functions of the reproductive organs of livestock and poultry.</i>		2%		C2	E/SC	Core
AQ05.02	<i>Explain the role of the estrus cycle, ovulation, heat detection, fertilization, artificial insemination, embryo transfer, and cloning in animal reproduction management.</i>		2%			E/H/SC	Core
AQ05.03	<i>Compare the different methods and the major systems of breeding livestock and poultry.</i>		2%		C2	E/SC	Core
AQ05.04	<i>Infer the genotype of offspring based on genetic principles.</i>		2%		C2	M/SC	Core
AQ06.00	Understand the role of prevention, rations, feed additives, and hormone implants in animal health and productivity.		6%		C2		
AQ06.01	<i>Explain the uses of sanitation, immunization, and surgical procedures in animal production.</i>		2%		C2	E/H/SC	Core
AQ06.02	<i>Recognize the six functions and the characteristics of a good ration.</i>		2%		C1	H/M/SC	Core
AQ06.03	<i>Explain the use of feed additives and hormone implants for various kinds of animals.</i>		2%		C2	E/H/SC	Core
AQ07.00	Understand animal disease and parasite problems and treatments.		4%		C2		
AQ07.01	<i>Classify the major diseases and parasites affecting livestock and poultry.</i>		2%		C2	E/H/SC	Core
AQ07.02	<i>Explain methods of controlling and treating diseases and parasites of livestock and poultry.</i>		2%		C2	E/H/SC	Core
AQ08.00	Evaluate livestock and poultry.		2%		C3P		
AQ08.01	<i>Check production records needed to improve livestock and poultry.</i>		2%		C3	E/M	Core
AQ08.02	<i>Critique selected livestock and poultry using physical characteristics and performance records.</i>				C3	A/M/SC	Supp
AQ08.03	<i>Implement procedures to prepare animals for a livestock show.</i>				C3P	A/H/M/SC	Supp

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1	2	3	4	5	6	7	8
D	CROP PRODUCTION		18%				
AQ09.00	Understand approved production and management practices for optimum return to land, labor, capital, and management for each of the major agricultural crops produced in North Carolina.		18%		C3P		
AQ09.01	<i>Explain procedures for optimum yields.</i>		9%		C3P	M/SC	Core
AQ09.02	<i>Explain procedures for least cost of production.</i>		9%		C3P	M/SC	Core
E	FOREST AND WILDLIFE MANAGEMENT						
AQ10.00	Apply approved practices to manage forests.				C3P		
AQ10.01	<i>Explain the importance of forestry and forest management and the factors that affect the productivity of forests including harvesting and reforestation techniques.</i>				C2	E/M/SC	Supp
AQ10.02	<i>Classify common North Carolina trees based on their physical characteristics.</i>				C2	A/M/SC	Supp
AQ10.03	<i>Implement procedures used to measure saw timber and pulpwood.</i>				C3P	M/SC	Supp
AQ11.00	Apply principles of managing wildlife on private property.				C3P		
AQ11.01	<i>Explain methods of managing wildlife resources and the impact of federal, state, and local legislation on the management and use of wildlife.</i>				C2	CS/E/M/ SC/SS	Supp
AQ11.02	<i>Implement procedures used to increase and maintain adequate supplies of diverse wildlife populations.</i>				C3P	M/SC/SS	Supp
AQ12.00	Apply safe practices in managing and harvesting wildlife species.				C3P		
AQ12.01	<i>Explain the responsibilities of a hunter for the purpose of developing safe and efficient wildlife management practices.</i>				C2	E/H/M/SC	Supp
AQ12.02	<i>Implement the safe use of firearms, hunting equipment, and supplies.</i>				C3P	H/M/SC	Supp

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1	2	3	4	5	6	7	8
F	AGRICULTURAL BUSINESS MANAGEMENT		10%	4%	C2		
AQ13.00	Understand the factors that affect marketing of agricultural products.		6%		C2		
AQ13.01	<i>Compare factors that affect marketing of agricultural products.</i>		3%		C2	E/M/SS	Core
AQ13.02	<i>Compare the types of marketing strategies for agricultural products.</i>		3%		C2	E/M/SS	Core
AQ14.00	Apply procedures for keeping records on an agricultural enterprise to determine return to land, labor, capital, and management.		2%	2%	C3P		
AQ14.01	<i>Remember terms used in agricultural business management and financial statements.</i>		2%		C1	M/SS	Core
AQ14.02	<i>Execute procedures used to complete financial statements.</i>			2%	C3P	CS/M/SS	Core
AQ15.00	Apply procedures for determining sources of credit for agricultural businesses.		2%	2%	C3P		
AQ15.01	<i>Compare major sources of agricultural credit, the eligibility requirements for each source, and the different methods of computing interest.</i>		2%		C2	E/M/SS	Core
AQ15.02	<i>Execute procedures for completing loan forms and computing interest and payments on long and short-term loans.</i>			2%	C3P	E/M/SS	Core
G	MECHANICS IN AGRICULTURAL PRODUCTION		10%	15%			
AQ16.00	Apply procedures for the proper use of agricultural production tools, equipment, and facilities.		4%	4%	C3P		
AQ16.01	<i>Explain safety rules related to agricultural production.</i>		2%		C2	E/SC	Core
AQ16.02	<i>Explain procedures for using tools, equipment, and facilities.</i>		2%		C2	E/H/M/SC	Core
AQ16.03	<i>Apply procedures for using tools and equipment properly and safely.</i>			4%	C3P	H/M/SC	Core
AQ17.00	Apply procedures used for oxy-fuel welding.				C3P		
AQ17.01	<i>Explain procedures for using oxyacetylene equipment and materials.</i>				C2	E/M/SC	Supp
AQ17.02	<i>Execute procedures to weld various types of joints and metals, cut low carbon steel, solder, braze, heat, bend, harden, and temper metal.</i>				C3P	H/M/SC	Supp

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1	2	3	4	5	6	7	8
AQ18.00	Apply procedures used to arc weld.		2%	6%	C3P		
AQ18.01	<i>Explain procedures for using arc welding equipment.</i>		2%		C2	E/H/SC	Core
AQ18.02	<i>Execute procedures to weld using SMAW, GMAW, and GTAW procedures.</i>			6%	C3P	A/M/SC	Core
AQ19.00	Apply procedures for the safe operation of tractors.		2%	2%	C3P		
AQ19.01	<i>Classify types of agricultural tractors and their uses.</i>		2%		C2	A/E/M/SC	Core
AQ19.02	<i>Implement principles and procedures for safe operation of tractors.</i>			2%	C3P	A/E/H/SC	Core
AQ20.00	Apply preventive maintenance procedures for tractors, equipment, and small engines.		2%	3%	C3P		
AQ20.01	<i>Explain preventive maintenance procedures for tractors, equipment, and small engines.</i>		2%		C2	E/H/M/SC	Core
AQ20.02	<i>Implement procedures to troubleshoot agricultural tractors, equipment, and small engines using owner's manuals.</i>			3%	C3P	E/M/SC	Core
AQ21.00	Apply procedures to maintain an agricultural water system.				C3P		
AQ21.01	<i>Recognize pipe tools, types of pipe, fixtures, and supplies.</i>				C1	A/E/M/SC	Supp
AQ21.02	<i>Explain principles and procedures to maintain and repair pipes, fixtures, and water systems.</i>				C2	A/E/H/M/ SC	Supp
AQ21.03	<i>Implement principles and procedures to maintain and repair pipes, fixtures, and water systems.</i>				C3P	H/M/SC	Supp