

DESE Model Curriculum

GRADE LEVEL/UNIT TITLE: 11-12/Ag Structures Plans

Course Code:

COURSE INTRODUCTION:

This course includes electrical wiring, electrical motors, concrete masonry, plumbing and sewage disposal, farm fences, product handling and processing equipment, and farm buildings. (CD 016720, CIP 01.0201)

Course Rationale – Agriculture encompasses the food, fiber, conservation and natural resource systems, employing over 20% of the nation's workforce. Basic construction skills and knowledge in electricity, plumbing, concrete, and masonry are necessary for the building of agricultural structures.

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UNIT DESCRIPTION: Students will learn to develop a complete construction plan, including construction drawings, procedures, and bills of materials.		SUGGESTED UNIT TIMELINE: 2 Weeks CLASS PERIOD (min.): 50 MINUTES				
ESSENTIAL QUESTIONS: 1. How do you develop a complete construction plan?						
ESSENTIAL MEASURABLE LEARNING OBJECTIVES	CCSS LEARNING GOALS (Anchor Standards/Clusters)	CROSSWALK TO STANDARDS				
		GLEs/CLEs	PS	CCSS	AFNR Standards	DOK
1. Read and create a simple construction drawing				G-CO-1 G-CO-12 G-CO-6 RST11-12.2 RST11-12.3 RST11-12.9 SL11-12.2	PST 04.01 PST 04.02.01.a PST 04.03.01.a	2
2. Develop a plan of procedure and a bill of materials for a construction project				N-Q-2 SL11-12.2 RST11-12.9 WHST11-12.2	PST 04.01 PST 04.02.01.a PST 04.03.01.a	4

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3. Demonstrate an understanding of the importance planning has on effective work procedure by drawing a construction plan and developing a plan of procedure, a cutting bill of materials, and a purchasing bill of materials.			N-Q-2 G-CO-1 G-CO-12 G-CO-6 SL11-12.4 RST11-12.9 L11-12.6 WHST11-12.2	PST 04.01 PST 04.02.01.a PST 04.03.01.a	4
<p>ASSESSMENT DESCRIPTIONS*: (Write a brief overview here. Identify Formative/Summative. Actual assessments will be accessed by a link to PDF file or Word doc.)</p> <p>Students will develop a construction plan for a project by making three scale drawings — one each for the top, front, and side of the project. Students must also devise a plan of procedure, a cutting bill of materials, and a purchasing bill of materials for a project.</p> <p>Assessment will be based on the completeness, accuracy, and appearance of the drawings and the overall thoroughness and accuracy of the plan of procedure and bills of materials.</p> <p>*Attach Unit Summative Assessment, including Scoring Guides/Scoring Keys/Alignment Codes and DOK Levels for all items. Label each assessment according to the unit descriptions above (i.e., Grade Level/Course Title/Course Code, Unit #.)</p>					
Obj. #	INSTRUCTIONAL STRATEGIES (research-based): (Teacher Methods)				
1-3	1. Lecture, discussion, & demonstration.				
1-3	2. Individual Work.				
Obj. #	INSTRUCTIONAL ACTIVITIES: (What Students Do)				
1-3	1. Students will engage in study questions in lessons 1 and 2.				
1-3	2. Students will complete “AS 1.1, Reading a Plan”; “AS 1.2, Drawing a Plan”; and “AS 2.1, Preparing a Plan of Procedure.”				

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	3. Additional activities that relate to the unit objective can be found under the heading “Other Activities” in the following locations: p. I-5 and p. I-32
UNIT RESOURCES: (include internet addresses for linking) <ul style="list-style-type: none">• <i>Agricultural Construction Volume I.</i> University of Missouri-Columbia, Instructional Materials Laboratory, 1989.• <i>Agricultural Structures.</i> University of Missouri-Columbia, Instructional Materials Laboratory, 1999.• <i>Computer Applications in Agriculture.</i> University of Missouri-Columbia, Instructional Materials Laboratory, 2001.	