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| **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?** |
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| **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-1G-CO-12G-CO-6RST11-12.2RST11-12.3RST11-12.9SL11-12.2 | PST 04.01PST 04.02.01.aPST 04.03.01.a | **2** |
| 1. Develop a plan of procedure and a bill of materials for a construction project
 |  |  |  | N-Q-2SL11-12.2RST11-12.9WHST11-12.2 | PST 04.01PST 04.02.01.aPST 04.03.01.a | **4** |
| 1. 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-2G-CO-1G-CO-12G-CO-6SL11-12.4RST11-12.9L11-12.6WHST11-12.2 | PST 04.01PST 04.02.01.aPST 04.03.01.a | **4** |
| **ASSESSMENT DESCRIPTIONS\*: (Write a brief overview here. Identify Formative/Summative. Actual assessments will be accessed by a link to PDF file or Word doc. )** 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.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.**\*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 #.)** |
| **Obj. #** | **INSTRUCTIONAL STRATEGIES (research-based): (Teacher Methods)**  |
| 1-3 | 1. Lecture, discussion, & demonstration.
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| 1-3 | 1. Individual Work.
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| **Obj. #** | **INSTRUCTIONAL ACTIVITIES: (What Students Do)** |
| 1-3 | 1. Students will engage in study questions in lessons 1 and 2.
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| 1-3 | 1. 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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|  | 1. 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
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| **UNIT RESOURCES: (include internet addresses for linking)*** *Agricultural Construction Volume I.* University of Missouri-Columbia, Instructional Materials Laboratory, 1989.
* *Agricultural Structures*. University of Missouri-Columbia, Instructional Materials Laboratory, 1999.
* *Computer Applications in Agriculture*. University of Missouri-Columbia, Instructional Materials Laboratory, 2001.
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