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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-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** |
| 1. 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** |
| 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-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** |
| **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. | | | | | | | |
| 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. | | | | | | | |
| 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.” | | | | | | | |
|  | 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 | | | | | | | |
| **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. | | | | | | | | |