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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. | | | | | | | | | |
| **UNIT DESCRIPTION:** | | | **SUGGESTED UNIT TIMELINE: 2 WEEKS**  **CLASS PERIOD (min.): 50 MINUTES** | | | | | |
| **ESSENTIAL QUESTIONS:**  **1. Determine fence selection based on application, location and cost.** | | | | | | | | |
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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. Discuss the terminology, dangers, and safety practices associated with building fences. | |  | |  |  | G-CO-1  G-CO-12  G-MG-2  N-Q-1  A-REI-3  RST11-12.4  SL11-12.1  SL11-12.4 | PST.01.01  PST.01.03  PST.02.01  PST.04.01  PST.04.02  PST.04.03  PST.04.04  PST.05.01  PST.05.02  PST.05.03 | **2** |
| 1. Describe how to set and brace wood and steel posts. | |  | |  |  | G-CO-1  G-CO-12  G-MG-2  N-Q-1  A-REI-3  SL11-12.4  RST11-12.9  L11-12.6 | PST.01.01  PST.01.03  PST.02.01  PST.04.01  PST.04.02  PST.04.03  PST.04.04  PST.05.01  PST.05.02  PST.05.03 | **2** |
| 1. Describe techniques for building barbed and woven wire fences | |  | |  |  | G-CO-1  G-CO-12  G-MG-2  N-Q-1  A-REI-3  SL11-12.4  RST11-12.9  L11-12.6 | PST.01.01  PST.01.03  PST.02.01  PST.04.01  PST.04.02  PST.04.03  PST.04.04  PST.05.01  PST.05.02  PST.05.03 | **2** |
| 1. Describe techniques for building high tensile and electric fences. | |  | |  |  | G-CO-1  G-CO-12  G-MG-2  N-Q-1  A-REI-3  SL11-12.4  RST11-12.9  L11-12.6 | PST.01.01  PST.01.03  PST.02.01  PST.04.01  PST.04.02  PST.04.03  PST.04.04  PST.05.01  PST.05.02  PST.05.03 | **2** |
| 1. Identify fence mending techniques. | |  | |  |  | G-CO-1  G-CO-12  G-MG-2  N-Q-1  A-REI-3  RST11-12.9  L11-12.6 | PST.01.01  PST.01.03  PST.02.01  PST.04.01  PST.04.02  PST.04.03  PST.04.04  PST.05.01  PST.05.02  PST.05.03 | **3** |
| 1. Apply principles of correct fence installation by devising a fencing plan that complies with local codes and includes the materials used, cost, and layout of the fence. | |  | |  |  | G-CO-1  G-CO-12  G-MG-2  N-Q-1  A-REI-3  RST11-12.7  RST11-12.3  RST11-12.9  L11-12.6  WHST11-12.2 | PST.01.01  PST.01.03  PST.02.01  PST.04.01  PST.04.02  PST.04.03  PST.04.04  PST.05.01  PST.05.02  PST.05.03 | **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. )**  Each student will devise a fencing plan for an area designated by the instructor. The plan will include the materials used, cost, and an aerial-view drawing to indicate the layout of the fence. Students must also determine what local building and zoning codes apply to the fence and must design a fence that complies with all relevant codes.  Assessment will be based on the overall content and presentation of the fencing plan.  **\*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)** | | | | | | | |
| 1-6 | 1. Lecture, guest speaker, demonstrations, student application using satellite images, and on sight comparisons. | | | | | | | |
| 1-6 | 1. Student application using satellite images and on sight comparisons. | | | | | | | |
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| **Obj. #** | **INSTRUCTIONAL ACTIVITIES: (What Students Do)** | | | | | | | |
| 1-6 | 1. Students will engage in study questions in lessons 1 through 5. | | | | | | | |
| 1-6 | 1. Students will complete “AS 1.1, Building Legal Fences”; “AS 2.1, Constructing Model Brace Assemblies”; “JS 3.1, Constructing Barbed Wire Fencing”; “AS 4.1, Tensioning Fences”; and “AS 5.1, Splicing Wire.” | | | | | | | |
|  | 1. Additional activities that relate to the unit objective can be found under the heading “Other Activities” in the following locations:  p. VII-5, p. VII-16 (1), and p. VII-54. | | | | | | | |
| **UNIT RESOURCES: (include internet addresses for linking)**   * *Agricultural Structures*. University of Missouri-Columbia, Instructional Materials Laboratory, 1999. * Call 1-800-DIG-RITE First. University of Missouri Outreach & Extension. Lincoln University. Accessed January 17, 2012, from <http://outreach.missouri.edu/webster/ag-edge/legal/dig-rite.html>. * Cook, J. B., & Nickolaus, G. F. *Basic Procedures in Administration of Zoning Regulations: Appeals*. MU Extension. University of Missouri-Columbia. Accessed January 17, 2012, from <http://muextension.missouri.edu/explore/commdm/dm7613.htm>. * Cook, J. B., & Nickolaus, G. F. *Basic Procedures in Administration of Zoning Regulations: Making Applications*. MU Extension. University of Missouri-Columbia. Accessed January 17, 2012, from <http://muextension.missouri.edu/explore/commdm/dm7612.htm>. * Local regulatory agencies, such as the planning and development department, public works department, and county board of commissioners * Matthews, S. F. *Missouri Fencing and Boundary Laws*. MU Extension. University of Missouri-Columbia. Accessed January 17, 2012, from <http://muextension.missouri.edu/explore/agguides/agecon/g00810.htm>. * Phillips, R. E. *Constructing Wire Fences*. MU Extension. University of Missouri-Columbia. Accessed January 17, 2012, from <http://muextension.missouri.edu/explore/agguides/agengin/g01192.htm>. * Zulovich, J. M. *Selecting Wire Fencing Materials*. MU Extension. University of Missouri-Columbia. Accessed January 17, 2012, from <http://muextension.missouri.edu/explore/agguides/agengin/g01191.htm>. * Students may use additional outside sources to complete this activity. | | | | | | | | |