GRADE LEVEL/UNIT TITLE: 11-12/Fencing   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: | SUGGESTED UNIT TIMELINE: 2 WEEKS |
| | CLASS PERIOD (min.): 50 MINUTES |

ESSENTIAL QUESTIONS:

1. Determine fence selection based on application, location and cost.

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
2. Describe how to set and brace wood and steel posts.				G-CO-1 G-CO-12 G-MG-2 N-Q-1	PST.01.01 PST.01.03 PST.02.01 PST.04.01	2

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				A-REI-3 SL11-12.4 RST11-12.9 L11-12.6	PST.04.02 PST.04.03 PST.04.04 PST.05.01 PST.05.02 PST.05.03	
3. 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**
4. 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**
5. Identify fence mending techniques.				G-CO-1 G-CO-12 G-MG-2	PST.01.01 PST.01.03 PST.02.01	**3**

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				N-Q-1	PST.04.01	
				A-REI-3	PST.04.02	
				RST11-12.9	PST.04.03	
				L11-12.6	PST.04.04	
					PST.05.01	
					PST.05.02	
					PST.05.03	
6. 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	PST.01.01	**4**
				G-CO-12	PST.01.03	
				G-MG-2	PST.02.01	
				N-Q-1	PST.04.01	
				A-REI-3	PST.04.02	
				RST11-12.7	PST.04.03	
				RST11-12.3	PST.04.04	
				RST11-12.9	PST.05.01	
				L11-12.6	PST.05.02	
				WHST11-12.2	PST.05.03	

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.

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1-6	2. Student application using satellite images and on sight comparisons.

Obj. #	INSTRUCTIONAL ACTIVITIES: (What Students Do)
1-6	1. Students will engage in study questions in lessons 1 through 5.
1-6	2. 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."
	3. 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.

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- Students may use additional outside sources to complete this activity.